CURRICULUM

GERIATRIC CARE AIDE (GCA)

Market Aligned Skills Training (MAST)

Supported by
FRANKLIN TEMPLETON INVESTMENTS
GERIATRIC CARE AIDE

(GCA)
About the American India Foundation

The American India Foundation is committed to improving the lives of India’s underprivileged, with a special focus on women, children, and youth. AIF does this through high impact interventions in education, health, and livelihoods, because poverty is multidimensional. AIF’s unique value proposition is its broad engagement between communities, civil society, and expertise, thereby building a lasting bridge between the United States and India. With offices in New York and California, twelve chapters across the U.S., and India operations headquartered in Delhi NCR, AIF has impacted 6.7 million lives across 26 states of India.

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About the Market Aligned Skills Training (MAST) Program

Market Aligned Skills Training (MAST) provides unemployed young people with a comprehensive skills training that equips them with the knowledge and skills needed to secure employment and succeed on the job. MAST not only meets the growing demands of the diversifying local industries across the country, it harnesses India’s youth population to become powerful engines of the economy.

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<td>CV making &amp; Interview Preparation Theory + Interactive session- (6 hrs)</td>
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<td>Questions to ask in Interview</td>
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<td><strong>TECHNICAL PART:</strong> Theory – 144 Hours Practical/OJT – 161 Hours</td>
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<td><strong>SOFT SKILL PART:</strong> Theory + Interactive session – 30 Hours</td>
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<td><strong>TOTAL HOURS (Classroom training) - 335 Hours</strong></td>
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<td><strong>Class Room equipped with following arrangements:</strong></td>
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<td>- Interactive lectures &amp; Discussion</td>
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<td>- Charts &amp; Models</td>
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<td>- Activity</td>
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<td>- Video presentation</td>
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<td>Skill lab equipped with following arrangements:</td>
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<td>- Unique equipment as enlisted at the last</td>
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<td>- Practical Demonstration of various functions</td>
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<td><strong>Equipment &amp; Other Matters:</strong></td>
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<td>Sheet, Pillow, Pillow Cover, Blanket, Student Chair, Wheel Chair,</td>
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<td>Scissor, Steel Plate, Steel Glass, Steel Bowl, Spoon, Steel Jug, Bath Tub, Kidney Tray,</td>
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<td>Walker, Crutch, Cupboard, Stretch, Cane, Steel Basin, Bed pan, Urinal</td>
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<td>IV Stand, Measuring Glass, Measuring Tape, Projector, White Board, Writing Pad, Goggles,</td>
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<td></td>
<td>(Male &amp; Female, Weighing Machine, Fire Extinguisher, Artery Forceps,</td>
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<td>Towel, Gown, Gloves (disposable) – packet, Gloves (surgical)</td>
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<td>Sheet, Pillow, Pillow Cover, Blanket, Student Chair, Wheel Chair,</td>
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<td>Walker, Crutch, Cupboard, Stretch, Cane, Steel Basin, Bed pan,</td>
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<td>Plastic Bags with Dustbins, Uro bag Gauze Piece (4X4), Betadine Solution Bottle, Cotton</td>
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<td></td>
<td>Urinal (Male &amp; Female, Weighing Machine, Fire Extinguisher, Artery</td>
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<td>Rolls, Micropore, Needle burner, Thermometer, Syringe 50 cc/ml, B.P. Monitoring Machine,</td>
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<td></td>
<td>Forceps, Class Room equipped with following arrangements:</td>
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<td>Thermometer, Inch Tape, Weighing Machine, Ice cap, Foley catheter, Adult Diaper, <strong>Ryle’s tube</strong>, Tourniquet, Rubber sheet, Draw Sheet,</td>
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Introduction of Geriatric Aide

Geriatric Aides—often referred to as nursing aides, nursing assistants, patient care assistants and various other titles—provide basic care to patients in hospitals or other medical facilities. They work under advisory from a nursing staff and usually have a great deal of direct contact with patients. A rough estimate is that the aides working in long-term care facilities may be responsible for 80-90% of all personal care that a patient is provided.

Geriatric aides offer personal care and assistance to elderly people who no longer have the health, strength, or resources to be completely self-sufficient. Some geriatric aides help medical personnel care for patients who are ill, disabled, or medically fragile.

Why do the elderly need care?

- Physiological reserve capacity (in terms of muscle strength, cardio-respiratory fitness, skeletal integrity) of older people declines
- Reduction in reserve capacity
- Decline in functional independence
- Reduces their capacity to adapt to new challenges presented by disease and social and environmental factors

Traditionally elder care is the responsibility of family members but due to changing family systems from Joint Family to Extended Family or Nuclear Family and more so in the modern societies where both husband and wife are working it the need of an extra help is felt to take care of their elderly who stay at home alone for long period of time each day.

An elderly person, even in normal condition needs extra help at home due the reduced capacities listed above and when ill, will need it at home or hospitals

1.1 Functions of geriatric aide

A geriatric aide will need to understand the socio-economic, physical, psychological, medical and other related issues of the elderly

- Geriatric care aides help feed, bathe and dress old age male/female in their charge
- Depending on the patient's condition, the aide may assist with moving and transporting them; this may include helping them walk or assisting them with exercise and physical therapy
- Aides answer patients' calls for assistance and help prepare them for surgery
- Tracking vital signs, checking blood pressure, temperature, nutritional intake and heart rate
- Collect specimens and assist in other medical procedures, as well as generally observing the patient's condition and reporting any changes to physicians and nursing staff
- Additionally, aides are also responsible for changing linen, replacing bedpans and cleaning a patient's room

1.2 Roles of various healthcare providers

Health professionals play a central and critical role in improving access and quality health care for the population. They provide essential services that promote health, prevent diseases and deliver health care services to individuals, families and communities based on the primary health care approach.

Healthcare providers can be divided into groups

- Doctors. The doctors are the primary care providers...
Doctors
The doctors are the primary care providers. The doctors that we all refer to as 'doctor' is also called a physician or general practitioner. These are for first-level diagnoses and the treatment of colds, flu, and other conditions. Specialists Doctors include urologists, neurologists, cardiologists, oncologists, chiropractors, psychologists, dentists, paediatricians etc.

Nurses
Nurses are not only in hospitals. There may be trained and registered nurses in a doctor’s office to take blood pressure, do blood sugar tests, draw blood, etc. Nurses work closely with patients and their job in the healthcare process is often more important for recovery than the doctor's. They take care of patients and are there when things go wrong. Nurses can have different levels of qualification based on their studies and experience.

Pharmacists
Pharmacists know a lot about chemicals, medicines, side effects, and toxins. They give patients the medications that a doctor prescribed for a specific condition. They can also advise patient's on over-the-counter medication to help with certain conditions. Pharmacists often help doctors understand what types of medicine to prescribe together to avoid serious side effects in the patient. They offer instruction on how to take medication and an answer the questions of the patient.

Administrative Staff
Administrative staff at a doctor’s office or a hospital is also an important part of the healthcare team. Without them, things may go very wrong. They handle appointments, payments, patient files, health insurance companies, specialists, medical reps, etc. They make the doctor’s office or hospital run. They are definitely an integral part of the team.

Technologists and Technicians
Before making a diagnosis, doctors often need more information about what is going on in the patient’s body. To get this information, the doctor may send blood or urine samples to a lab for analysis. The technicians who work in the lab look for all kinds of things in the blood or urine to help the doctor make a diagnosis. These are laboratory technicians. The second sets of technicians are radiology technicians. They are the people who take x-rays so a radiologist can evaluate them and make a diagnosis. Pharmacy technicians help pharmacists get prescriptions ready and even help with customers. All these technicians play an important part in the team.

Therapists
Therapists are also specialists, but their services are different from those of doctors. They help people recover from illness or injury through working on physical aspects like speech, movement, coordination, etc. The main types of therapists include:

Physical therapists - They work with a person’s muscles, movement, strength, etc. They are usually part of rehabilitation after an injury. People also visit them to loosen tense muscles or get rid of built-up tension. Sports players make use of physical therapists on a regular basis.

Occupational therapists - They also offer rehabilitative types of services. They work with children with developmental or mental problems. They work with patients who were injured or had a stroke and need to learn to walk, talk, brush their teeth, pick up a spoon, etc. all over again
Speech therapists - They work with people who struggle with speech, language, or swallowing. They help children with speech defects or who have trouble using a language correctly, etc. The work that therapists do has a wide range and their rehabilitative and corrective services are crucial to especially children and people who have been severely injured.

1.1 Ageing Process and Psychological Approach

Ageing is not merely the passage of time. It is the manifestation of biological events that occur over a span of time. It is important to recognize that people age differently. The ageing body does change. Some systems slow down, while others lose their "fine tuning."

Generally, slight, gradual changes are common, and most of these are not problems to the person who experiences them. Sudden and dramatic changes might indicate serious health problems.

Normal ageing has four aspects:

- **Biological**
  Biological aging is defined as the natural occurrence of irreversible, increasing with age changes in metabolism and the physicochemical properties of cells, leading to impaired self-regulation and regeneration and structural and functional changes in tissues and organs.

- **Psychological**
  There are many mental illnesses associated with older adults. These psychological problems are studied under geriatric psychology. Four common problems that can affect elderly patients are depression, anxiety disorders, substance abuse and psychotic disorders etc.

- **Socio-Cultural**
  Ageing is defined by the value system of society and not by physical deterioration or by time. A person is sociologically old when he is so regarded and treated by the members of his society and when he defines himself as being in this category. Sociological interest in aging focuses upon the cultural value system that defines changes in status and role and upon the meaning of these changes to the aged themselves and to the members of their groups.

- **Sexual ageing and Women's sexual health** - As women approach menopause, their estrogen levels decrease, which may lead to vaginal dryness and slower sexual arousal. Emotional changes can increase feelings of stress, which also can change your interest in sex.

**Ageing in Men** - Most physical changes are the result of gradually decreasing testosterone levels. These changes affect energy, strength, muscle and fat mass, bone density, and sexual function:
- A man's sexual response begins to slow down after age 50 but his sexual drive is more likely to be affected by his health and his attitude about sex and intimacy than by his age
- It may take longer for a man to get an erection, and more time needs to pass between erections
- Erections will be less firm. But a man who has good blood flow to his penis will be able to have erections that are firm enough for sexual intercourse throughout his entire life

Four common problems that can affect elderly patients are Depression, Anxiety Disorders, Substance Abuse and Psychotic Disorders. Each of these occurs in younger patients as well but are especially problematic in older adults.

**Depression**

As a person grows older significant life changes may increase the risk for depression. It may be illness and disability, chronic or severe pain, cognitive decline, damage to the body image because of surgery/sickness that can lead to depression. Various other reasons for depression may be:

- Loneliness reducing social circle due to deaths or relocation, decreased mobility due to illness
- Losing self confidence after retirement resulting in loss of status, self-confidence, financial security, limitation of physical activity impacts negatively on the sense of purpose
- Anxiety due to fear of death or financial insecurity or health issues
Anxiety due to fear of death or financial insecurity or health issues
- Bereavement due to loss of spouse, friend, close relative or pet
- Medical conditions—either painful, disabling or life threatening

**Anxiety Disorders:**
Similar to depression - Anxiety Disorders are often unrecognized and undertreated in older adults. Anxiety can worsen an older adult's physical health, decrease their ability to perform daily activities, and decrease feelings of well-being.

- **Panic Disorder** - sudden feelings of repeated terror strikes without any warning. Symptoms may be chest pain, heart palpitations, shortness of breath, dizziness, abdominal discomfort and fear of dying.
- **Obsessive-Compulsive Disorder** - Commonly known as OCD. Repeated hand-washing, counting, checking or cleaning may be a few indicators
- **Phobia** - Extreme irrational fears resulting in avoiding social gatherings, moving outside of the house or may be fear of heights, bridges, driving, sounds nad can be many more.
- **Post-Traumatic Stress Disorder** - Commonly known as PTSD. After experiencing an accident, violence, natural disaster the person going back into flashbacks, nightmares, depression, getting angry or irritated.
- **Generalized Anxiety Disorder** - Unnecessary and exaggerated worrying on routine activities and happenings. Occurrence of most negative to worst thoughts, resulting into fatigue, trembling, muscle-tension, headache, nausea.

**Substance abuse**
Substance abuse and addiction in the elderly population is increasingly abusing alcohol, prescription medications and illicit drugs. They face many risks including cognitive impairment, harmful medication interactions, poor nutrition, social isolation and an increased risk of falls and injuries. Alcohol and drug abuse is also linked to increased mortality rates and healthcare costs.

**Psychotic disorders**
Elderly are exposed to many medical disorders that may lead to Psychotic disorders. Common disorders including thyroid disease, diabetes, vitamin B₁₂, and folate deficiency, sodium-potassium imbalance, sleep deprivation, and dehydration, as well as chronic illnesses have been associated with psychosis in the elderly. Differential diagnosis of psychosis in the elderly resulted in the listed disorders:

- **Delirium** - An acute reversible state of confusion wherein cognitive changes which either go unrecognized or improperly diagnosed mostly. It may be superimposed on other psychotic conditions like schizophrenia, depression etc.
- **Schizophrenia** - Initially this may occur around middle age that subsequently shows more clear symptoms in the older age. Dementia may also develop simultaneously in the later age
- **Delusional Disorder** - This may be represented by false beliefs e.g. being harmed or poisoned, jealousy, theft mistaken identity, marital infidelity and physical symptoms like pain, weakness or shortness of breath
- **Mood Disorders with Psychosis** - In older patients these disorders are the most common
- **Dementia with Psychosis** - Elderly patients with dementia are at a higher risk to develop psychotic symptoms.
- **Substance Abuse with Psychosis** - In older age more commonly a person is likely be alone which is the reason why they turn to alcohol and sometimes they may take overdose of certain prescription drugs
- **Psychotic Disorders Due to Medical or Neurologic Conditions** - Due to certain diseases associated with older age such patients may develop psychotic symptoms. The diseases may include - thyroid disease, diabetes, vitamin B₁₂ and folate deficiency, sodium-potassium imbalance, sleep deprivation and dehydration. The psychotic disorders may be hallucinations, depression, Parkinson's dementia
Drug-Induced Psychosis - Multiple drug that old age patients need to take may cause psychotic symptoms. Some drugs for example - Antidepressants like Imipramine, Doxepin etc., Stimulants such as - Amphetamine, Ephedrine etc., Analgesics & Anti-inflammatory - Aspirin, Anticonvulsants like Carbamazepine, Primidone,

Biological psychological and social determinants of old age: Bio-psycho-social aspects of human ageing. The ageing of humans is a physiological and dynamic process ongoing with time. It starts in the fourth decade of life and leads to death. The process of human ageing is complex and individualized, occurs in the biological, psychological and social sphere. Biological ageing is characterized by progressive age-changes in metabolism and physicochemical properties of cells, leading to impaired self-regulation, regeneration, and to structural changes and functional tissues and organs. It is a natural and irreversible process which can run as successful ageing, typical or pathological. Biological changes that occur with age in the human body affect mood, attitude to the Environment, physical condition and social activity and designate the place of seniors in the family and society. Psychical ageing refers to human awareness and his adaptability to the ageing process.

Among adaptation attitudes we can differentiate: constructive, dependence, hostile towards others and towards self attitudes. With progressed age, difficulties with adjustment to the new situation are increasing, adverse changes in the cognitive and intellectual sphere take place, perception process involutes, perceived sensations and information received is lowered, and thinking processes change. Social ageing is limited to the role of an old person is culturally conditioned and may change as customs change. Social ageing refers to how a human being perceives the ageing process and how society sees it.

1.4 Communicable and non-communicable diseases

A non-communicable disease (NCD) is a disease that is not transmissible directly from one person to another. NCDs include Parkinson’s disease, autoimmune diseases, strokes, most heart diseases, most cancers, diabetes, chronic kidney disease, osteoarthritis, osteoporosis, Alzheimer’s disease, cataracts, and others

Non-communicable diseases (NCDs) are not a new problem, having long been of concern in developed countries; they are, however, of increasing concern in developing countries because of their transition from low-income to middle-income status, the influence of globalization on consumption patterns

A communicable disease is one that is spread from one person to another through a variety of ways that include: contact with blood and bodily fluids (includes sexually transmittable); breathing in an airborne virus; by being bitten by an insect, through fecal-oral route or contact with contaminated fomites, droplets etc. Communicable diseases include Cold, Flu, Typhoid, AIDS, Dysentery, 2019-nCoV (COVID-19) etc.

NCD mortality and morbidity. Of 56.9 million global deaths in 2016, 40.5 million, or 71%, were due to non-communicable diseases (NCDs).

Precautions to be taken while caregiving COMMUNICABLE DISEASES Patient.

- Wear PPE where ever needed
- Hand washing
- Maintain Hygiene
- Avoid sharing one’s belongings

Advices to be given while care giving NON-COMMUNICABLE DISEASE Patient

- Regular check up
- Proper diet
- Daily exercise
- Proper sleep and rest

(9)
1.5 Common Health Problems in Elderly in India:
- Diabetes
- Arthritis
- Kidney & Bladder problems
- Dementia
- Parkinson’s
- Influenza
- 2019-nCoV (COVID-19)
- Lungs disease
- Cataract
- Osteoporosis
- Alzheimer’s disease
- Depression
- Cardio vascular diseases

**Diabetes**
Diabetes is a disease that occurs when your blood glucose, also called blood sugar, is too high. Blood glucose is your main source of energy and comes from the food you eat. Insulin, a hormone made by the pancreas, helps glucose from food get into your cells to be used for energy.

**Common symptoms of diabetes:**
- Urinating often.
- Feeling very thirsty.
- Feeling very hungry - even though you are eating.
- Extreme fatigue.
- Blurry vision.
- Cuts/bruises that are slow to heal.
- Weight loss - even though you are eating more (type 1)
- Tingling, pain, or numbness in the hands/feet (type 2)

Fasting plasma glucose (FPG) test or the HbA1C test is done to diagnose diabetes. Sometimes Random plasma glucose (RPG) test may also be done.

**Arthritis**
Arthritis is a disease causing painful inflammation and stiffness to the joints.

Arthritis usually causes stiffness pain and fatigue. The joints of the body are the site of much of the action in arthritis. Many types of arthritis show signs of joint inflammation: swelling, stiffness, tenderness, redness or warmth. These joint symptoms may be accompanied by weight loss, fever or weakness.

Blood tests are not needed to diagnose all types of arthritis, but they help to confirm or exclude some forms of inflammatory arthritis. The doctor may also draw joint fluid or do a skin or muscle biopsy to help diagnose certain forms of arthritis. To diagnose arthritis, the doctor will consider the symptoms and perform a physical exam to check for swollen joints or loss of motion, and use blood tests and X-rays to confirm the diagnosis. X-rays and blood tests also help distinguish the type of arthritis.

**Kidney and Bladder Problem**
Urinary incontinence or UI, Urinary Tract Infection, Kidney Stone, Prostrate are the problems related to the Kidney and Bladder.

The kidneys are part of the urinary system, which also includes the ureters, bladder, and urethra. Muscle changes and changes in the reproductive system can affect bladder control. As you age, your kidneys and bladder change.... This causes the kidneys to filter blood more slowly.
Some common signs and symptoms of bladder issues include:
- Bladder leakage.
- Painful urination.
- Cloudy urine.
- Frequent or sudden urge to urinate.
- Frequent urination (more than eight times during the day or more than two times at night).
- Pain during sexual intercourse.
- Pressure or pain in the lower abdomen.

**Urine Test** called ACR. (Albumin-to-Creatinine ratio). Albumin is a type of protein.

**Blood Test** to estimate your GFR. Your **blood** will be tested for a waste product called creatinine. Creatinine comes from muscle tissue.

**Dementia**

It is a chronic or persistent disorder of the mental processes caused by brain disease or injury and marked by memory disorders, personality changes, and impaired reasoning.

**Causes of dementia.** Alzheimer’s disease – This is the most common cause of dementia. In Alzheimer’s disease, an abnormal protein surrounds brain cells and another protein damages their internal structure. Doctors diagnose Alzheimer’s and other types of dementia based on a careful medical history, a physical examination, laboratory tests, and the characteristic changes in thinking, day-to-day function and behavior associated with each type.

**Influenza**

It is a highly contagious viral infection of the respiratory passages causing fever, severe aching and often occurring in epidemics. Respiratory samples for **influenza** testing include nasopharyngeal or nasal swab, and nasal wash or aspirate, depending on which kind of test is used. Samples should be collected within the first 3-4 days of illness.

**Parkinson’s Disease**

It is a progressive nervous system disorder that affects movement. Symptoms start gradually, sometimes starting with a barely noticeable tremor in just one hand. Tremors are common, but the disorder also commonly causes stiffness or slowing of movement.

**Early signs of Parkinson’s Disease**
- cramped handwriting or other writing changes.
- tremor, especially in finger, hand or foot.
- uncontrollable movements during sleep.
- limb stiffness or slow movement (bradykinesia)
- voice changes.
- rigid facial expression or masking.
- stooped posture.

Diagnoses of Parkinson’s disease is based on the medical history of the patient, a review of the signs and symptoms and a neurological and physical examination.

**2019-nCoV (COVID-19)**

Corona Virus disease 2019 (COVID-19) is defined as illness caused by a novel corona virus now called severe acute respiratory syndrome Corona virus 2.
Most common symptoms:
- fever
- dry cough
- tiredness

Less common symptoms:
- aches and pains
- sore throat
- diarrhea
- conjunctivitis
- headache
- loss of taste or smell
- a rash on skin, or discoloration of fingers or toes

Serious symptoms:
- difficulty breathing or shortness of breath
- chest pain or pressure
- loss of speech or movement

Viral Tests and Antibody Tests are done for diagnosing COVID 19

Lungs Disease
People with lung disease have difficulty breathing. The term lung disease refers to many disorders affecting the lungs, such as asthma, COPD, infections like influenza, pneumonia and tuberculosis, lung cancer, and many other breathing problems. Some lung diseases can lead to respiratory failure. The Common Signs are:
- Trouble breathing.
- Shortness of breath.
- Feeling like you're not getting enough air.
- Decreased ability to exercise.
- A cough that won't go away.
- Coughing up blood or mucus.
- Pain or discomfort when breathing in or out.

As the disease progresses, the interstitium and the walls of the alveoli thicken, which further impedes lung function. Blood tests, pulmonary function tests (spirometry), pulse oximetry, chest x-ray, chest CT, bronchoscopy with biopsy, or surgical biopsy may be performed to help diagnose your condition.

Cataract
Cataract is the clouding of the eye’s natural lens. It is the most common cause of vision loss in people over age 40 and is also the principal cause of blindness in the world. ... A subcapsular cataract occurs at the back of the lens.

Causes
Most cataracts develop when aging or injury changes the tissue that makes up your eye’s lens. Some inherited genetic disorders that cause other health problems can increase your risk of cataracts. Cataracts can also be caused by other eye conditions, past eye surgery or medical conditions such as diabetes.

Osteoporosis
It means porous bone. It is a disease in which the density and quality of bone are reduced. As bones become more porous and fragile, the risk of fracture is greatly increased. The loss of bone occurs silently and progressively.

Symptoms
- Back pain caused by a fractured or collapsed vertebra.
- Loss of height over time.
- A stooped posture.
- A bone that breaks much more easily than expected.

To diagnose osteoporosis and assess your risk of fracture and determine your need for treatment, your doctor will most likely order a bone density scan. This exam is used to measure bone mineral density (BMD). It is most commonly performed using dual-energy x-ray absorptiometry (DXA or DEXA) or bone densitometry.
Alzheimer’s Disease

Alzheimer’s disease is an irreversible, progressive brain disorder that slowly destroys memory and thinking skills and, eventually, the ability to carry out the simplest tasks. These plaques and tangles in the brain are still considered some of the main features of Alzheimer’s disease.

Early Signs and Symptoms of Alzheimer’s

- Memory loss that disrupts daily life
- Challenges in planning or solving problems
- Difficulty completing familiar tasks
- Confusion with time or place
- Trouble understanding visual images and spatial relationships
- New problems with words in speaking or writing

A standard medical workup for Alzheimer’s disease often includes structural imaging with magnetic resonance imaging (MRI) or computed tomography (CT). These tests are primarily used to rule out other conditions that may cause symptoms similar to Alzheimer’s but require different treatment.

Depression

Depression is a mood disorder that causes a persistent feeling of sadness and loss of interest. Also called major depressive disorder or clinical depression, it affects how you feel, think and behave and can lead to a variety of emotional and physical problems. Research suggests that depression doesn't spring from simply having too much or too little of certain brain chemicals. Rather, there are many possible causes of depression, including faulty mood regulation by the brain, genetic vulnerability, stressful life events, medications, and medical problems. Changes in the brain - It’s complicated, and there are multiple causes of major depression. Factors such as genetic vulnerability, severe life stressors, substances you may take (some medications, drugs and alcohol) and medical conditions can affect the way your brain regulates your moods.

The influx of cortisol triggered by depression also causes the amygdala to enlarge. This is a part of the brain associated with emotional responses. When it becomes larger and more active, it causes sleep disturbances, changes in activity levels, and changes in other hormones. The Hamilton Depression Rating Scale (HDRS) is a questionnaire designed to help healthcare professionals determine the severity of depression in people who have already been diagnosed. It also consists of 21 questions. Each relates to a particular sign or symptom of depression. MRI scans may be able to detect physical and functional changes in the brain that could be markers for major depression. Dr Kenneth T. Wengler, from Columbia University, New York - in a study have observed disruption of the blood-brain barrier in gray matter regions known to be altered in major depressive disorder.

Cardiovascular Disease

- Cardiovascular disease (CVD) is the name for the group of disorders of heart and blood vessels, and include: hypertension (high blood pressure) coronary heart disease (heart attack)
- Symptoms
- Chest pain, chest tightness, chest pressure and chest discomfort (angina)
- Shortness of breath.
- Pain, numbness, weakness or coldness in your legs or arms if the blood vessels in those parts of your body are narrowed.
- Pain in the neck, jaw, throat, upper abdomen or back.

Common Tests used to diagnose Cardiovascular Disease

- Blood Tests
- EKG/ECG (Electrocardiogram)
- Stress Testing
- Echocardiography
- Coronary Angiography and Cardiac Catheterization
- Chest X Ray
- Electron-Beam Computed Tomography or EBCT
- Cardiac MRI
Questions for Section-1

1. Why do elderly need care?
2. List down Healthcare providers. Write three sentences each for i) Nurses and ii) Therapists.
3. Briefly describe the Psychotic Disorders in the elderly. Describe Substance abuse.
4. True or False:
   a. Parkinson’s Disease is a Communicable disease
   b. PPE is worn while treating a Non Communicable patient
   c. HbA1C Test is done to diagnose depression amongst the older patient
   d. Influenza is highly contagious
   e. Difficulty in breathing is a serious symptom of COVID-19
5. Choose the correct answer:
   a. Which is the test to diagnose Cardio Vascular Disease:
      i) ECG      ii) Echo Cardiograph      iii) EBCT
      iv) All of the Above      v) None of the above
   b. Symptoms of Osteoporosis include:
      i) Confusion with time or place
      ii) Chest Pain
      iii) Shortness of Breath
      iv) Vision Loss
      v) Lose of height over time
   c. COVID 19 disease symptoms include
      i) Dry Cough
      ii) Difficulty in Breathing
      iii) Tiredness
      iv) None of the above
      v) All of the above
6. Difference between Communicable and Non-Communicable diseases?
Anatomy and Physiology of Human Body

Anatomy is the study of the structure of an object, in this case the human body. Human anatomy deals with the way the parts of humans, from molecules to bones, interact to form a functional unit. The study of anatomy is distinct from the study of physiology, although the two are often paired.

There are two major types of anatomy. Gross (macroscopic) anatomy is the study of anatomical structures that can be seen by the naked eye, such as the external and internal bodily organs. Microscopic anatomy is the study of tiny anatomical structures such as tissues and cells.

Some of the easily recognizable internal organs:
- The Brain
- The Lungs
- The Liver
- The Bladder
- The Kidneys
- The Heart
- The Stomach
- The Intestine

2.1 Basic structure of human body- Anatomy

The human body has four limbs (two arms and two legs), a head and a neck which connect to the torso. The body's shape is determined by a strong skeleton made of bone and cartilage, surrounded by fat, muscle, connective tissue, organs, and other structures. The most basic unit is the cell; groups of similar cells form tissues; groups of different tissues make up organs; groups of organs form organ systems; cells, tissues, organs, and organ systems combine to form a multicellular organism.

Figure: Six organ systems
2.2 Cell and Organs of human body and function

Cells - the basic unit of all living organisms. Tissues - groups of similar cells that work together to perform a specific function. For example, brain tissue, muscle tissue and heart tissue. Organs - different tissues working together to carry out a particular function.

Functions of human body:

The functions of the human body are:

a. **Circulatory system**:  
   - Circulates blood around the body via the heart, arteries and veins, delivering oxygen and nutrients to organs and cells and carrying their waste products away  
   - Keeps the body's temperature in a safe range

b. **Digestive system and Excretory system**:  
   - System to absorb nutrients and remove waste via the gastrointestinal tract, including the mouth, esophagus, stomach and intestines  
   - Eliminates waste from the body

c. **Endocrine system**:  
   - Influences the function of the body using hormones
d. **Integumentary system / Exocrine system:**
   - Skin, hair, nails, sweat and other exocrine glands

e. **Immune system and lymphatic system:**
   - Defends the body against pathogens that may harm the body
   - The system comprising a network of lymphatic vessels that carry a clear fluid called lymph.

f. **Muscular system:**
   - Enables the body to move using muscles

g. **Nervous system:**
   - Collects and processes information from the senses via nerves and the brain and tells the muscles to contract to cause physical actions

h. **Renal system and Urinary system**
   - The system where the kidneys filter blood to produce urine, and get rid of waste

i. **Reproductive system:**
   - The reproductive organs required for the production of offspring

j. **Respiratory system:**
   - Brings air into and out of the lungs to absorb oxygen and remove carbon dioxide

k. **Skeletal system:**
   - Bones maintain the structure of the body and its organs

### 2.3 Systems of Human Body

<table>
<thead>
<tr>
<th>Organ System</th>
<th>Function</th>
<th>Organs, Tissues and Structures Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>Transports oxygen, nutrients, and other substances to the cells, and transports wastes, carbon dioxide, and other substances away from the cells; it can also help stabilize body temperature and pH.</td>
<td>Heart, blood, and blood vessels.</td>
</tr>
<tr>
<td>Lymphatic</td>
<td>Defends against infection and disease. Transfers lymph between tissues and the blood stream.</td>
<td>Lymph, lymph nodes, and lymph vessels.</td>
</tr>
<tr>
<td>Digestive</td>
<td>Processes foods and absorbs nutrients, minerals, vitamins, and water.</td>
<td>Salivary glands, esophagus, stomach, liver, gallbladder, pancreas, small intestine, and large intestine.</td>
</tr>
<tr>
<td>Endocrine</td>
<td>Provides communication within the body via hormones. Directs long-term change over other organ systems to maintain homeostasis.</td>
<td>Pituitary gland, pineal gland, thyroid, parathyroid gland, adrenal glands, testes, and ovaries.</td>
</tr>
<tr>
<td>Muscular</td>
<td>Provides movement, support, and heat production.</td>
<td>Tendons, skeletal, cardiac, and smooth muscles.</td>
</tr>
<tr>
<td>Nervous</td>
<td>Collects, transfers, and processes information. Directs short-term change over other organ systems in order to maintain homeostasis.</td>
<td>Brain, spinal cord, nerves, and sensory organs (eyes, ears, tongue, skin, and nose).</td>
</tr>
<tr>
<td>Reproductive</td>
<td>Produces gametes (sex cells) and sex hormones; ultimately produces offspring.</td>
<td>Fallopian tubes, uterus, vagina, ovaries, mammary glands, testes, vas deferens, seminal vesicles,</td>
</tr>
<tr>
<td>System</td>
<td>Function</td>
<td>Organs</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Respiratory</strong></td>
<td>Delivers air to sites where gas exchange can occur between the blood and cells (around body) or blood and air (lungs).</td>
<td>Mouth, nose, pharynx, larynx, trachea, bronchi, lungs, and diaphragm.</td>
</tr>
<tr>
<td><strong>Skeletal</strong></td>
<td>Supports and protects soft tissues of the body. Provides movement at joints, produces blood cells, and stores minerals.</td>
<td>Bones, cartilage, and ligaments.</td>
</tr>
<tr>
<td><strong>Urinary</strong></td>
<td>Removes excess water, salts, and waste products from the blood and body. Controls pH.</td>
<td>Kidneys, ureters, urinary bladder, and urethra.</td>
</tr>
<tr>
<td><strong>Immune</strong></td>
<td>Defends against microbial pathogens (disease-causing agents) and other diseases.</td>
<td>Leukocytes, tonsils, adenoids, thymus, and spleen.</td>
</tr>
</tbody>
</table>

2.4 Physiology of Human Body:

**Physiology.** Human physiology is the study of how the human body functions. This includes the mechanical, physical, bioelectrical, and biochemical functions of humans in good health, from organs to the cells of which they are composed. The human body consists of many interacting systems of organs.

**Organs of the Body:**

**Vital Organs** - there are five vital organs that people need to stay alive. These are also a number of other organs that work together with these vital organs to ensure that the body is functioning well.

- **Brain**
  The brain is the control center of the human body. It creates, sends, and processes nerve impulses, thoughts, emotions, physical sensations etc. and forms the core of the central nervous system. The protection is provided to it by a bone structure called Skull. The three main sub-parts of the brain are:
  - Cerebrum
  - Cerebellum
  - Brainstem
  Some other key components of the brain within this area and the Spinal Cord comprise the central nervous system.

As we age our brains shrink in volume, particularly in the frontal cortex. As our vasculature ages and our blood pressure rises the possibility of stroke and ischaemia increases and our white matter develops lesions. Memory decline also occurs with ageing and brain activation becomes more

- **Heart**
  The Heart is known as the pump house of a human body. It is the most important organ of the circulatory system which helps deliver blood to the body. It pumps the freshly oxygenated blood through blood vessels is pumped in the whole body. The oxygen gets added to the blood from the lungs as the heart works with the lungs.
The heart beats in consistent rhythm and proper rate through the electrical impulses generated by the inbuilt electrical system. When there is an excess need of blood in the body the beating of the heart increases e.g. while doing exercise or running and when the body is at rest the blood requirement may decrease in turn decreasing the heart rate. There are four chambers in the heart. The two upper chambers are called atria, and the two lower chambers are called ventricles. Normal changes in the heart include deposits of the "aging pigment," lipofuscin. The heart muscle cells degenerate slightly. The valves inside the heart, which control the direction of blood flow, thicken and become stiffer. A heart murmur caused by valve stiffness is fairly common in older people.

- **Lungs**
  The duty of Lungs is to oxygenate the blood as it works closely with the heart. The air that a person breathes-in gets filtered by lungs while it removes the excess carbon dioxide in the lungs by breathing-out. Thus there is an exchange of Oxygen with Carbon dioxide. Following are the parts of the lungs:

  * **The left and right bronchi:** The trachea splits into these tubes, which extend into the lungs and have branches. These smaller bronchi split into even smaller tubes called bronchioles.
  * **The alveoli:** The alveoli are tiny air sacs at the end of the bronchioles. They work like balloons, expanding when a person inhales and contracting when they exhale.
  * **The blood vessels:** There are numerous blood vessels in the lungs for carrying blood to and from the heart.

  With extensive medical care, a person can live without one lung, but they cannot survive with no lungs. The diaphragm, which is a thick band of muscle directly under the lungs, helps the lungs expand and contract when a person breathes. There are several body changes that happen as you get older that may cause a decline in lung capacity: Alveoli can lose their shape and become baggy. The diaphragm can, over time, become weaker, decreasing the ability to inhale and exhale. This change will only be significant when exercising.

- **Liver**
  The liver is the most important organ of the metabolic system. It helps to detoxify certain usable substances out of the usable substances which it converts from the nutrients. It also filters the blood that comes in from the digestive tract through a vein before the blood joins the venous flow from various parts of the body. An artery helps the oxygenated blood reach the liver. Liver is located under the rib cage with most of the liver mass being in the upper side of the abdomen.

  It has multiple roles in digestion and filtering the blood. It produces bile and helps the body filter out the toxic substances such as alcohol, drugs, harmful metabolites regulating blood levels of various important chemicals including amino acids making cholesterol removing certain bacteria from the blood making some immune factors clearing bilirubin from the blood regulating the blood clotting process so that a person doesn’t over bleed or doesn’t develop dangerous blood clots.

  Along with the gallbladder it delivers bile to the small intestine. The bile is poured in the gallbladder where it gets stored and again released when needed by the body to help digestion. A person can live without portions of their liver, but the liver itself is vital for life. While the person age there is decline in the flow of blood in the Liver and from the age of 65 years a person shows an approximately 35% decrease in the blood volume of the liver as compared to those under the age of 40 years. The liver itself progressively shrinks 20-40% with age and simultaneously decreasing its volume.
Kidneys

The kidneys are a pair of bean shaped organs, and each is about the size of a fist. They are located on either side of the back, protected inside of the lower part of the rib cage. They help filter blood and remove waste from the body. Blood flows from the renal artery into the kidneys. Each kidney contains about a million tiny units for filtration known as nephrons. They help filter waste to the urine and then return the filtered blood to the body through the renal vein. The kidneys also produce urine when they remove waste from the blood. Urine flows out of the kidneys through the ureters, and flow down to the urinary bladder.

A person can live with just one kidney. When a person is experiencing severe kidney failure, dialysis can filter the blood until they get a kidney transplant or their kidney recovers some function. Aging increases the risk of kidney and bladder problems such as: Bladder control issues, such as leakage or urinary incontinence (not being able to hold your urine), or urinary retention (not being able to completely empty your bladder) Bladder and other urinary tract infections (UTIs) Chronic kidney disease.

Non-Vital Organs - Even though a person can survive without the Non-vital organs but there may conditions affecting them that may be life threatening or dangerous. Many infections and cancers in non-vital organs are life threatening, especially without prompt treatment. The injuries to these organs may also affect vital organs e.g. when a gallstone undermines liver function.

Gallbladder

Small and pear shaped, the gallbladder is found in the right upper quadrant of the abdomen, just under the liver. It contains cholesterol, bile salts, bile, and bilirubin.

In a healthy person, the liver releases bile into the gallbladder, which the gallbladder stores and then releases to travel down the common bile duct into the small intestine to aid digestion. However, some people develop gallstones that block the gallbladder or biliary tree, causing intense pain and interfering with digestion. Also, this can sometimes interfere with liver or pancreas function. In older people the substances that are more toxic to the liver causes more damage than in the younger. Repair of damaged liver cells is also slower in older people. The production and flow of bile decrease with aging resulting into formation of gallstones.

Pancreas

Located in the upper left portion of the abdomen, the pancreas has two important roles: It functions as both an exocrine gland and an endocrine gland. As an exocrine gland, the pancreas produces enzymes a person needs to help digest their food and convert it into energy. Those enzymes include amylase, lipase, trypsin, and chymotrypsin. In its role as an endocrine gland, the pancreas also produces and releases insulin, which helps the body remove glucose from the blood and convert it into energy.

Problems with insulin can lead to a dangerously high level of blood glucose and the onset of diabetes. The pancreas also produces and releases glucagon, which raises blood glucose levels. The main pancreatic duct connects to the common bile duct, which flows from the liver and gallbladder. Therefore, problems within the biliary tree, liver, or gallbladder may also affect the pancreas. Pancreas undergoes various pathological changes with aging characterized by increased fatty replacement, fibrosis, lymphoplasmacytic infiltration, amyloid deposition, a decreased weight as well as development of intra-epithelial neoplastic changes.
• **Stomach**

The stomach is a J shaped organ near the top of the abdomen. Food begins its journey to the stomach soon after a person swallows. The food moves down from the throat and into the esophagus. The stomach is located at the end of the esophagus. The muscles of the stomach help it break down and digest food. Within its lumen lining, certain regions of the stomach also produce enzymes that help digest food. The enzyme pepsin, for example, breaks down proteins so that they can become amino acids. The stomach also helps store chyme until it moves to the intestines. Chyme refers to food that has mixed with stomach secretions. With old age there may be drastic effects on the function of the digestive system. Reduced appetite due to changes in hormone production and alteration in smell and taste. The physiological changes in the pharyngeal skills and oesophageal motility may lead to dysphagia and reflux.

• **Intestines**

The intestines are a group of tubes that help filter out waste, absorb water and certain electrolytes, and digest food. Partially digested food first travels through the small intestine, which comprises three parts: the duodenum, the jejunum, and the ileum. Most digestion and absorption of food happens here. Food then becomes feces as it travels within and through the large intestine. This begins with the cecum, extends to the rest of colon, and ends with the rectum. The rectum is the last stop for feces before expulsion occurs from the anus. In the Small intestine Excessive growth of certain bacteria (bacterial overgrowth syndrome) becomes more common with age and can lead to pain, bloating, and weight loss. Bacterial overgrowth may also lead to decreased absorption of certain nutrients, such as vitamin B12, iron, and calcium. The digestive tract may get affected and so the risk of developing digestive disorders. The muscles in the digestive tract become stiffer, weaker and less efficient.
**QUESTIONS**

**Section-2**

Qs. 1 Define Anatomy and name 5 Internal Organs of Human Body

Qs. 2 Briefly explain any three Body systems:

<table>
<thead>
<tr>
<th>i) Circulatory System</th>
<th>ii) Digestive System</th>
<th>iii) Muscular System</th>
</tr>
</thead>
<tbody>
<tr>
<td>iv) Reproductive System</td>
<td>v) Skeletal System</td>
<td></td>
</tr>
</tbody>
</table>

Qs. 3 What do you understand by Human Physiology?

Qs. 4 List down the parts of Human Brain from the following

<table>
<thead>
<tr>
<th>i) Cerebrum</th>
<th>ii) Aorta</th>
<th>iii) Brainstem</th>
</tr>
</thead>
<tbody>
<tr>
<td>iv) Cerebrum</td>
<td>v) Trachea</td>
<td></td>
</tr>
</tbody>
</table>

Qs. 5 Which of the following organ removes waste from the blood in the form of Urine:

<table>
<thead>
<tr>
<th>i) Liver</th>
<th>ii) Lungs</th>
<th>iii) Pancreas</th>
</tr>
</thead>
<tbody>
<tr>
<td>iv) Kidney</td>
<td>v) Stomach</td>
<td></td>
</tr>
</tbody>
</table>
Basic Terminology Theory

3.1 Basic Medical Terminology

Medical terminology is language used to precisely describe the human body including its components, processes, conditions affecting it, and procedures performed upon it. The roots, prefixes and suffixes are often derived from Greek or Latin and often quite dissimilar from their English-language variants.

Some common medical terms
1. Benign: Not cancerous
2. Malignant: Cancerous
3. Anti-inflammatory: Reduces swelling, pain, and soreness (such as ibuprofen or naproxen)
4. Body Mass Index (BMI): Body fat measurement based on height and weight
5. Biopsy: A tissue sample for testing purposes
6. Hypotension: Low blood pressure
7. Hypertension: High blood pressure
8. Lesion: Wound, sore, or cut
9. Noninvasive: Doesn’t require entering the body with instruments; usually simple
10. Outpatient: Check in and check out the same day
11. Inpatient: Plan to stay overnight for one or more days
12. In remission: Disease is not getting worse; not to be confused with being cured
13. Membrane: Thin layer of pliable tissue that serves as a covering or lining or connection between two structures
14. Acute: Sudden but usually short (e.g., acute illness)
15. Angina: Pain in the chest related to the heart that comes and goes
16. Gastroesophageal Reflux Disease (GERD): Heartburn
17. Cellulitis: Inflamed or infected tissue beneath the skin
18. Epidermis: Outermost layer of skin
19. Neutrophils: Most common type of white blood cell
20. Edema: Swelling
21. Embolism: Blood clot
22. Sutures: Stitches
23. Polyp: Mass or growth of thin tissue
24. Compound fracture: Broken bone that protrudes through the skin
25. Comminuted fracture: Broken bone that shatters into many pieces
26. BD: Twice A Day (12 Hrly)
27. OD: Once A Day
28. TDS: 3 Times A Day (8 Hrly)
29. QID: 4 Times A Day (6 Hrly)
30. STAT: Immediately
31. SOS: When Necessary
32. BMI: Body Mass Index
33. CC: Cubic Centimeter
34. CBC: Complete Blood Count
35. ESR: Erythrocyte Sedimentation Rate
36. CXR: Chest X Ray
37. DIL: Dilute
38. DM: Diabetes Mellitus
39. DVT: Deep Vein Thrombosis
40. FBS: Fasting Blood Sugar
41. FE: Iron
42. FFP: FRESH FROZEN PLASMA
43. GTT: GLUCOSE TOLERANCE TEST
44. H/O: HISTORY OF
3.2 Hospital structure

A hospital is a regulated organization with multiple departments. Like any other organization, it is essential to define a structure of operations at a hospital. The organizational model defines the framework, line of duty, communication roles and resource allocation.
QUESTIONS

Section-3

Qs.1 What do you understand by Medical Terminology?
Qs.2 Give 10 examples of Medical Terms
Qs.3 What are four Basic Services under Administration in a Hospital?
Qs.4 What is the medical term used for Swelling;
   i) Malignant    ii) Hypertension    iii) Edema
   iv) Polyps      v) Acute

Qs.5 Write full forms of the following:
   i) CBC              ii) KFT
   iii) TDS
   iv) FBS            v) RBC
4.1 Professional qualities and characteristics/Role of Geriatric aid Attendant

Qualities of a good geriatric aide. The top 5 qualities that the employers look for are:

- Critical thinking and problem solving
- Teamwork and collaboration
- Professionalism and strong work ethic
- Oral and written communications skills
- Leadership

A geriatric aide is a specialist who will help elderly patients recover from illness or injury by providing practical care and developing patient care plans. They may also help with rehabilitation and conduct check-ups in skilled care facilities or hospice facilities.

- Be caring, compassionate, friendly, and respectful
- Be understanding, patient, gentle and non-judgmental
- Have good physical and mental health
- Display maturity, reliability and dependability
- Show strong organizational and time-management skills
- Practical, Observant, Attentive, Dependable, Trustworthy

Skills

- A friendly approach and the ability to put clients at ease, whatever their physical or social needs
- The ability to be tactful and sensitive at all times
- A good sense of humor
- Respect for the client and their families
- A high level of patience as shifts can be long and often stressful

4.2 Rights and responsibilities of Professional behavior and good communication,

Professional behaviors are a form of etiquette in the workplace that are linked primarily to respectful and courteous conduct. Being conscious of how you treat co-workers and clients, and ensuring a positive workplace attitude can help you to improve your productivity and effectiveness in the workplace.

Professional Geriatric Aides are responsible, trustworthy and truthful. They attend in-services, maintaining state certification and are open to learning and professional development in the workplace. Professionalism also includes following the correct chain of command, knowing your own scope of practice and being a team player. Professionalism in nursing means much more than simply wearing a uniform and speaking politely. It encompasses a set of values that are critical to elevating the quality of patient care while improving the methods, standards, and judgments that guide nursing practices every day.

A Geriatric Aide has full right to refuse any assignment if:-

- The assignment is out of scope of work
- the training to perform the assignment has not been provided
- the assigned task seems to be unethical or illegal
- the assigned task can put the client and/or Nursing Aide to risk or in danger

The nursing aide should possess Good Communication Skills: Geriatric Aide should be able to provide clear instructions and relevant information to the patient, and the patient's families. Patients, as well as co-workers, depend on a NA for different tasks. The geriatric aide should show a positive attitude and approach each task with a resolve to do it successfully.
Consent
Consent to treatment means a person must give permission before they receive any type of medical treatment, test or examination. The principle of consent is an important part of medical ethics and international human rights law.

Informed consent. To be valid, consent must be freely and voluntarily given by a patient with capacity who has been given all the information he or she needs to reach a decision. Patients should not be subjected to undue pressure or influence by medical staff or their family or friends.

Consent for illegal procedures is invalid. Always maintain good communication with your patient and provide adequate information to enable him make a rational decision. It is preferable to take consent in patient’s vernacular language. It may be better to make him write down his consent in the presence of a witness. It is fundamental to health care that the person receiving the care or treatment - the patient/client - agrees to receive it. We can see that this is important when it relates to 'big' things like operations, for which the patient needs to sign a form saying he or she gives informed consent.
QUESTIONS

Section-4

Qs. 1  What skills should a Geriatric Aide possess?
Qs. 2  What are the rights of a Geriatric Aide?
Qs. 3  Write a short note on Informed Consent.
Qs. 4  Write three qualities of a geriatric aide from those given below:

i) Dependable  ii) Teamwork  iii) Professionalism and Strong Work Ethic
iv) Critical Thinker  v) Strict Administrator

Qs. 5  Fill in the blanks from the words given in the bracket:

i) Professional behavior is a form ………………………. (speaking / Player / Nursing)
ii) Professional Geriatric Aide is the one who is ………. and ……..(responsible / strict / truthful)
iii) A geriatric Aide has full right to refuse the assignment if the assignment is out of ………. of work.(vision / reach / scope)
Measurement of Vital Signs

5.1 Vital signs, Pulse, Insulin, Blood Pressure, Sugar level

What are Vital Signs?
Vital signs, or vitals for short, are measurements of the inner workings of the human body. They are collected and recorded over time, giving providers information on how vital organs, such as the heart and lungs, are functioning. Vital signs can alert providers to medical problems, and these measurements are tracked throughout the patient journey, from pediatrics to acute care to home health. The main vital signs and how to measure them:

- **Heart Rate (also known as pulse)** - Heart rate, or pulse, is the number of times a heart beats per minute (bpm). Heart rates vary by person, and a normal pulse can range between 60 to 100 beats per minute. An individual's heart rate can fluctuate considerably due to fitness level, illness, injury, emotional state— even the temperature of the room can affect heart rate.

- **Respiration Rate** - It is also referred to as breathing rate, is the number of breaths taken per minute. This measurement is always taken when the individual is at rest. A single respiration count is equal to the chest rising (inhalaion) and falling (exhalaion) once. The normal range for an adult is 12 to 28 respirations per minute.

- **Body Temperature** - It is the amount of heat in the body. Core body temperature is controlled by a process called thermoregulation. No individual has the exact same temperature reading throughout the day as body temperature naturally fluctuates. Temperature is considered normal at 98.6 degrees F (37 degrees C), although anything between 97.6 degrees F (36.4 degrees C) to 99.6 degrees F (37.5 degrees C) is acceptable. A temperature over 100.4 degrees F (38 degrees C) indicates a fever caused by illness or injury. Hypothermia (low temperature) occurs when the body temperature dips below 95 degrees F (35 degrees C).

- **Blood Pressure** - It is a reading of how effectively the oxygenating blood is moving through the blood vessels of the circulatory system. Blood pressure is expressed in two parts: systolic pressure (the pressure created when the blood pumps from the heart into the arteries) over diastolic pressure (the pressure inside the artery as the heart rests between beats). This is a measurement with two numbers, recorded as mm Hg (millimeters of mercury) and written as systolic/diastolic. For adults, the systolic pressure should be less than 120 and the diastolic pressure should be less than 80. For this example, the measurement would be written as 120/80. Low blood pressure is called hypotension and high blood pressure is called hypertension.

- **Blood Sugar Level** - Blood Glucose Level. The blood glucose level is the amount of glucose in the blood. Glucose is a sugar that comes from the foods we eat, and it’s also formed and stored inside the body. It’s the main source of energy for the cells of our body, and it’s carried to each cell through the bloodstream. Normal blood sugar levels are less than 100 mg/dL after not eating (fasting) for at least eight hours. And they’re less than 140 mg/dL two hours after eating. During the day, levels tend to be at their lowest just before meals.

- **Insulin** - A unit of insulin is the most basic measure of insulin; U-100 is the most common concentration of insulin. U-100 means that there are 100 units of insulin per milliliter (ml) of liquid. Diabetics with severe insulin resistance can try insulin in the U-500 form. Fasting insulin is between 3–8 uIU/mL (18–48 pmol/L). HbA1c level is less than 5.6% (<37 mmol/mol). Glucose/insulin as HOMA-IR is near 1 (.5–1.5). The total body fat is <28% for men and <32% for women.
**Injecting Insulin** - It needs to go into the fat layer under the skin
- Pinch the skin and put the needle in at 45º angle
- If your skin tissues are thicker, you may be able to inject straight up and down (90º angle)
- Push the needle all the way into the skin
- Leave the syringe in place for 5 seconds after injecting

5.2 Function of geriatric aide in measurement of vital parameters, Blood Sugar

**Measuring Vitals**
Vitals are measured using equipment available in the market and in the current times most equipment have digital display for results thus it makes it much easier to record the readings

a. **To measure heart rate:**
   1. Wash your hands.
   2. Explain the process for consent of the patient and ensuring that he/she is comfortable
   3. The easiest place to find a pulse to measure is the radial artery found on the inside of the wrist closest to the thumb. Alternatively, you can find the pulse on the inside of the elbow (brachial artery), behind the knee (popliteal artery) or neck (carotid artery)
   4. Use first and second fingertips (never the thumb) to press firmly but gently on the wrist (or otherwise) until you feel a pulse
   5. With an analog clock or watch, wait until the second hand is on the 12
   6. Begin counting the beats of the pulse
   7. Count pulse for 60 seconds until the second-hand returns to the 12 (you may also count for 15 seconds and multiply by 4 to calculate beats per minute)
   8. When counting, do not watch the clock continuously, but concentrate on the beats of the pulse

b. **To take respiration rate:**
   1. Wash your hands
   2. Explain the process for consent of the patient and making him/her comfortable
   3. Place your fingers on the individual’s wrist (either side) to avoid making him/her conscious and disturbing the breathing rhythm
   4. Count breaths (inhale + exhale = 1 respiration) for one minute
   5. Document respiration rate, noting any observations (such as wheezing)
   6. Normal Heart Rate is in the range of 60-100

Factors like fever, agitation, illness, age, and even sleep can have an effect on breathing and therefore the respiratory rate. Respiratory rate fluctuations are often seen as an early warning sign for acutely-ill hospital patients, and it is closely monitored within acute care settings.

c. **To take body temperature a Thermometer is used (mainly Digital)**
   1. Wash your hands.
   2. Explain to the patient the process you are going to undertake which would also be the consent and the patient will be comfortable through the process
   3. Cover thermometer mouth tip with a clean plastic shield (or clean before and after use for glass)
   4. Press button to set the thermometer
   5. Place thermometer under tongue and instruct individual to close mouth for 3 minutes
   6. Wait several minutes, remove thermometer when beeping indicates the reading is complete
   7. Document temperature, including the date, time and method used as follows: “O” for oral, “R” for rectal, “E” for ear, “A” for auxiliary
   8. Clean and sterilize the thermometer.
   9. The average normal body temperature is generally accepted as 98.6°F (37°C). Some studies have shown that the “normal” body temperature can have a wide range, from 97°F (36.1°C) to 99°F (37.2°C). A temperature over 100.4°F (38°C) most often means you have a fever caused by an infection or illness
Note: Oral thermometers are not indicated for some individuals, such as those with a history of seizures. Digital thermometers can be used to take an auxiliary temperature by being placed under the armpit, against dry skin, for five

d. To take blood pressure:
Instruments used to take blood pressure include a stethoscope, blood pressure cuff with inflatable balloon (sphygmomanometer), and numbered pressure gauge called a digital monitor or aneroid monitor.
1. Wash your hands
2. Explain to the patient the process you are going to undertake which would also be the consent and the patient will be comfortable through the process
3. Disinfect stethoscope earpieces and diaphragm (round disk)
4. Check to make sure that the blood pressure monitor is in good working order
5. Place fingers on the underside of the elbow to locate pulse (called the brachial pulse)
6. Wrap and fasten deflated cuff snugly around the upper arm at least one inch above where you felt the strong and steady brachial pulse
7. Insert stethoscope earpieces and position diaphragm directly over the brachial pulse.
8. Pump air, inflating the arm cuff until the dial pointer reaches 170
9. Gently turn the knob on the air pump counter-clockwise to open the valve and deflate the cuff
10. As the dial pointer falls, watch the number and listen for a thumping sound
11. Note the number shown where the first thump is heard (systolic pressure)
12. Note the number shown where the last thump is heard (diastolic pressure)
13. Deflate and remove cuff
14. Document the reading, written as systolic/diastolic, and note any unusual observations
15. A blood pressure reading has a top number (systolic) and bottom number (diastolic). Normal blood pressure is 120 over 80 (120/80)

Test Blood Sugar at Home
1. Wash and dry hands well
2. Explain to the patient the process you are going to undertake which would also be the consent and the patient will be comfortable through the process
3. Insert a test strip into the meter
4. Prick the side of fingertip with the lancet provided with the test kit
5. Gently squeeze or massage the finger until a drop of blood forms
6. Touch and hold the edge of the test strip to the drop of blood
7. Fasting Blood Sugar level less than 100 mg/dL is normal. A fasting blood sugar level from 100 to 125 mg/dL is considered pre-diabetes. If it's 126 mg/dL or higher on two separate tests, you have diabetes. Normal Post Meal (after 2 hrs. of eating) is 140 mg/dL
QUESTIONS

Section-5

Qs. 1 What are Vital Signs? Define and give names of any two.
Qs. 2 Write the steps of taking Blood Pressure?
Qs. 3 Briefly describe the procedure of injecting Insulin.
Qs. 4 Tick the correct reading for the following:
   i) Fever _______ (98.6°F / 98°F / 101°F)
   ii) Blood Pressure _______ (140/100, 120/100, 120/80)
   iii) Oral Thermometer is kept in the mouth for _______  
        (1 min / 5 mins / 3 mins.)
   iv) Normal Fasting Blood Sugar level is ______
        (140, 60, 100)
   v) Normal heart rate of an adult human is _____
        (50-80 / 60-100 / 70-100)
Nutrition and Hydration

Nutrition and hydration are the intake of food and fluid to meet dietary and biological needs. Nutrition and hydration are essential for health and can help older people recover, remain independent. Poor nutritional status is not a normal part of ageing and may result in adverse outcomes such as increased risk and delayed healing of pressure injuries, decline in function, dehydration, and increased risk of death. Causes of low food intake and impaired nutritional status include depression, inability to eat independently, chewing and swallowing difficulties, pain, medications that inhibit appetite, and cognitive or functional impairments. Ageing services organizations can improve residents’ nutritional status by conducting nutritional assessments, by developing individualized care plans that focus on improving nutrition and hydration, by implementing appropriate interventions and by monitoring interventions for effectiveness. Typically, older adults require 30 kcal/kg of body weight, adjusting for weight loss or gain, with a daily protein intake of 0.8 to 1.0 g/kg of body weight per day and no more than 30% of calories coming from fat. Older adults also require foods fortified with calcium and vitamin D to prevent osteoporosis and folic acid and vitamin B to maintain cardiovascular health.

Overall, consuming a diet rich in nutrients may help older adults avoid the onset of certain chronic diseases and conditions. For example, one 2009 study found that older adults who adhered to a Mediterranean-type diet (i.e., a diet characterized by high amounts of fruit, vegetables, legumes, and cereals; moderate amounts of fish and monounsaturated fat; and low amounts of meat, poultry, and saturated fat) and engaged in frequent physical activity had a lower risk of developing Alzheimer disease than individuals who did not adhere to that type of diet or physical activity. Protein has also been found to be an important component of an older adult’s diet. A 2014 study examining how four different eating plans affected the muscular health of 20 healthy adults ages 52 to 75 found that older adults who consumed more protein than the daily recommended intake increased their rates of muscle protein synthesis and improved their net protein balance, regardless of when the protein was consumed. Additionally, a literature review examining the findings of seven studies involving 254,489 participants suggests that moderate dietary protein intake may lower the risk of stroke.

Good nutrition is an important part of leading a healthy lifestyle. Combined with physical activity, diet helps to reach and maintain a healthy weight, reduce risk of chronic diseases (like heart disease and cancer), and promote overall health of an individual. There are two main types of nutrients, macronutrients and micronutrients. The three main categories of macronutrients include carbohydrate, protein, and fat. The two types of micronutrients are vitamins and minerals, and these are extra molecules that cells need to make energy.

Good hydration contributes to physical and mental good health. It also helps the body to fight diseases and absorb nutrients and medication, as well as prevents dehydration. To improve your diet to stay healthy and hydrated: Drink water regularly throughout the day. Hydration - the missing part of nutritional care. Dehydration contributes to poor patient outcomes and can lead to avoidable harm. Reasons for this are suggested with recommendations for changing practice to reduce the negative impact this has on patient outcomes. There are seven essential factors for a balanced diet: carbs, protein, fat, fiber, vitamins, minerals and water.

Vitamins and minerals are considered essential nutrients—because acting in concert, they perform hundreds of roles in the body. They help shore up bones, heal wounds, and bolster your immune system. They also convert food into energy, and repair cellular damage.

VITAMIN A: Good for: Healthy Eyes and General Growth and Development, including Healthy Teeth and Skin. Natural Source: Carrots and other orange foods including sweet potato and cantaloupe melons - all of which get their hue from the carotene pigment

Vitamins B: Good for: Energy production, immune function and iron absorption.

Vitamin C: Good for: Strengthening blood vessels and giving skin its elasticity, anti-oxidant function and iron absorption. Natural Source: Oranges but they’re not the only source - other fruits and veggies packed with Vitamin C include guava, red and green peppers, kiwi, grapefruits, strawberries, Brussels sprouts and cantaloupe.
**Vitamin D:** *Good for:* Strong healthy bones.

**Natural Source:** Apart from spending a few minutes out in the sun, which stimulates Vitamin D production, you can get this nutritional must from eggs, fish and mushrooms.

**Folic Acid:** *Good for:* Cell renewal and preventing birth defects in pregnancy.

**Natural Source:** There are plenty of scrumptious natural sources of folic acid, including dark leafy greens, asparagus, broccoli, citrus fruits, beans, peas, lentils, seeds, nuts, cauliflower, beets and corn.

**Iron:** *Good for:* Building muscles naturally and maintaining healthy blood.

**Natural Source:** You might be surprised to know that clams take the top spot for iron content, followed by oysters and organ meats like liver. For the vegetarians among us, soybeans, cereal, pumpkin seeds, beans, lentils and spinach are great sources of iron.

**Calcium:** *Good for:* Healthy teeth and bones.

**Natural Source:** This mineral is another one that most of us already know - the best sources are dairy products like yogurt, cheese and milk, along with tofu and black molasses.

**RDA:** The recommended daily allowance (RDA) for vitamins and minerals is the average daily intake a person needs to avoid vitamin deficiencies and stay healthy. Men and women often have different vitamin and mineral recommendations.

### 6.1 Basic Nutrition

Older adults need more calcium and vitamin-D to help maintain bone health. To meet these needs, select calcium-rich foods and beverages and aim for three servings of low-fat or fat-free dairy products each day. Eat a wide variety of foods from the five food groups: plenty of colorful vegetables, legumes beans; fruit; grain (cereal) foods, mostly wholegrain and high fiber varieties; lean meats and poultry, fish, eggs, tofu, nuts and seeds; milk, yoghurt, cheese or their alternatives, mostly reduced fat. Dietary changes seem to affect risk-factor levels throughout life and may have an even greater impact in older people. Relatively modest reductions in saturated fat and salt intake, which would reduce blood pressure and cholesterol concentrations, could have a substantial effect on reducing the burden of cardiovascular disease. Increasing consumption of fruit and vegetables by one to two servings daily could cut cardiovascular risk by 30%.

### 6.2 Oral feeding

Oral feeding amongst the old becomes difficult because due to aging the swallowing gets effected

- Reduced saliva
- Reduced thirst
- Reduced sensation for sweet and salty
- Reduced tongue strength
- Reduced cough reflex

### 6.3 Ryle’s tube feeding

Nasogastric (Ryle’s) intubation is a narrow-bore tube passed into the stomach via the nose. It is used for short- or medium-term nutritional support, and also for aspiration of stomach contents - e.g. for decompression of intestinal obstruction. A wide-bore tube is used if drainage is needed; otherwise, a finer-bore tube is used. A common type of NG tube is 125 cm in length and with marks at 45, 55, 65 and 75 cm.
The need of a Ryle’s Tube insertion arises because of the person is not able to take diet orally. The reason for which may be varied. To verify the placement of the tube by performing two of the following methods: ask the patient to hum or talk (coughing or choking means the tube is properly placed); use an irrigation syringe to aspirate gastric contents; chest X-ray; lower the open end of the NG tube into a cup of water (bubbles indicate that the tube is in place).

Eating is a social activity. Many people do not like to eat alone. The loss of a spouse or close friend may bring on feelings of isolation that could escalate to depression. A person who is depressed may lose interest in eating. There is a theory of Disengagement that refers to an inevitable process in which many of the relationships between a person and other members of the family/society are severed. Medications also interfere with the body’s ability to absorb nutrients from food, and impair the body’s ability to excrete minerals.

**Tube Feeding Procedure**
- Wash your hands and Explain the procedure to the patient for informed consent
- Measure the correct amount of formula and warm it to the desired temperature
- Check tube placement as above (observing mark on tube and pH testing)
- Clamp the tube and attach a syringe to the feeding tube
- Pour the formula into the syringe and Un clamp the tube

**Medications and Treatments Impacting Appetite**
- Lipid-lowering drugs
- Antimicrobials
- Antineoplastic
- Anti-inflammatory drugs
- Bronchodilators and other asthma medications
- Antihypertensives and cardiac medications
- Muscle relaxants and drugs for the treatment of Parkinson’s Disease
- Antidepressants and anticonvulsants
- Radiation therapy
- Vasodilators

**Medications Impacting Taste**
- Change in taste Clarithromycin
- ACE inhibitors
- Lithium
- Allopurinol
- Antihistamines

Generally also the taste buds decreases with age especially in men. It may be because due to ageing the general complaints like:
- Food is not tasty
- Excessive use of sugar or salt
- Inability to identify the foods
- Decrease in appetite and weight loss
- Decrease pleasure from food
QUESTIONs
Section-6
Qs. 1 What do you understand by Nutrition and Hydration and how does these help older people?
Qs. 2 Name the essential factors of a balanced diet.
Qs. 3 Why is oral feeding difficult amongst old age people?
Qs. 4 What medications and treatments impact appetite – Choose any two from the following: i) Anti-inflamatory drugs, ii) Radiation Therapy, iii) Bandage, iv) Massage, v) X-Ray
Qs. 5 State True or False
   i) Vitamin A is good for strong healthy bones
   ii) Vitamin B is good for energy production
   iii) Oranges are the natural source for Vitamin C
   iv) Vitamins and minerals are considered as essential nutrients
   v) Calcium is a natural source for Vitamin C
Rehabilitation

7.1 Role of GCA in care of person with special needs

Private citizens and many types of healthcare providers hire special needs caregivers to provide ongoing assistance and care to patients who are unable to manage their own needs. No matter who employs them, special needs caregivers are required to perform the following job tasks:

**Manage Meals:** Special needs caregivers prepare, cook, and feed meals to their patients. The special needs caregiver may also perform the grocery shopping for their clients and clean up patients and food preparation areas after every meal.

**Daily Grooming:** Special needs caregivers assist their patients with all daily grooming needs, including brushing their teeth, bathing, and dressing.

**Bathroom Assistance:** Some patients may require assistance using the bathroom and cleaning up after themselves in the bathroom.

**Housekeeping Tasks:** Special needs caregivers also tend to tasks like the laundry, making up the bed, doing dishes, and performing other housekeeping chores.

**Entertainment Activities:** Special needs caregivers keep their patients' minds active by planning and managing learning and entertainment activities. This may include playing games, reading books, and talking to patients.

**Monitor Patients:** Special needs caregivers are responsible for monitoring their patients. This includes reporting any changes in patient mood, behavior, physical health, and home environment to family members and supervisors. They also create daily written or verbal reports regarding their patients' overall state of health and mind.

**Administer Medications:** Special needs caregivers must stay aware of medication schedules for patients and administer medicine as prescribed.

7.2 Nebulization, Chest Physiotherapy

- **Nebulization** is a process of drug delivery through machine where medicine is sent into the lungs directly via a mist. A breathing mask is fixed on nose and mouth; and while breathing, the medicine makes its way to the lungs. Nebulizers are primarily used for - asthma, COPD, and other severe breathing problems. However, it is also used for severe cases of nasal and chest congestion. It provides immediate relief by the opening of airways. Nebulizers in elderly are largely used to administer inhaled bronchodilators to patients with bronchial asthma and COPD with reversibility.

- **Chest Physiotherapy** plays a very important part in helping elderly with pneumonia to recover quickly. It helps treat diseases as cystic fibrosis and COPD (chronic obstructive pulmonary disease). It also keeps the lungs clear to prevent pneumonia after surgery and during periods of immobility. Chest Physiotherapy can provide, Management of respiratory failure. Drain secretions from specific part of the lungs to increase lung capacity and assist in chest expansion. It can be performed by professionally trained nurses in most settings. Chest physiotherapy techniques should be used every 2 to 4 hours for patients with retained secretions. Therapy should continue until breath sounds improve. It is performed as the patient breathes deeply. When done manually, the person performing the vibration places his or her hands against the patient’s chest and creates vibrations by quickly contracting and relaxing arm and shoulder muscles while the patient exhales.
hands against the patient’s **chest** and creates vibrations by quickly contracting and relaxing arm and shoulder muscles while the patient exhales.

Few images to show the Chest Physiotherapy procedure:
7.3 Bed Sore

Bedsores - also called pressure ulcers and decubitus ulcers - are injuries to skin and underlying tissue resulting from prolonged pressure on the skin. Bedsores most often develop on skin that covers bony areas of the body, such as the heels, ankles, hips and tailbone.

- Bedsores are ulcers that happen on areas of the skin that are under pressure from lying in bed, sitting in a wheelchair, and/or wearing a cast for a prolonged period.
- Bedsores can happen when a person is bedridden, unconscious, unable to sense pain, or immobile.
- Pressure sores develop in four stages. The skin will look red and feel warm to the touch. ... There may be a painful open sore or a blister, with discolored skin around it. A crater-like appearance develops, due to tissue damage below the skin's surface.

If not recognized and treated immediately, bedsores can quickly turn into serious infections - and can even be deadly. They develop quickly, advance rapidly, take a long time to heal, and are susceptible to infection. To help bed sores heal faster, clean it with saline water. Bed sores that are not cleaned properly are more prone to infection and inflammation. Saline water will reduce excess fluid and also get rid of loose dead skin.

Topical antiseptic or antimicrobial (antibiotic) creams and ointments aren't usually recommended for treating pressure ulcers. But barrier creams may be needed to protect skin that's been damaged or irritated by incontinence. Bedsores are treatable, but, if treatment comes too late, they can lead to fatal complications. They can damage skin. Keep the sore covered with a special dressing. This protects against infection and helps keep the sore moist so it can heal. Talk with your provider about what type of dressing to use.

Bedsores can be treated by:
- Removing pressure on the affected area.
- Protecting the wound with medicated gauze or other special dressings.
- Keeping the wound clean.
- Ensuring good nutrition.
- Removing the damaged, infected, or dead tissue (debridement)
- Transplanting healthy skin to the wound area (skin grafts)

Tips for Preventing Bed Sores in Bedridden Patients
- Change positions frequently. When you change positions often, there will be less pressure on your skin, reducing your risk of developing pressure ulcers.
- Keep skin clean and dry. The cleaner and drier your skin is, the less likely it will develop bed sores.
- Use pillows and Exercise

When to see a doctor:
If you notice warning signs of a bedsore, change your position to relieve the pressure on the area. If you don’t see improvement in 24 to 48 hours, contact your doctor.

7.4 Comfort Position and Devices

One of the basic procedures that nursing personnel perform most frequently is that of changing the patient’s position. Any position, even the most comfortable position becomes uncomfortable after a period of time. A sick person’s movements may be limited due disease, injury or helplessness. It is responsibility of the aide/nurse to position the patient to his/her comfort and change the same frequently as per requirement. Once the patient is able to ambulate his/her safety must be ensured. The aide will need to understand the Nursing problems such as- respiratory difficulty, body temperature, consciousness, cardiac function, appetite & digestion, physical activity, elimination, mental activity. Meeting the emergencies such as- problems which demands immediate attention must be dealt with immediately, Follow ABC, Problem of hemorrhage, shock & pain may become worse if immediate attention is not given. Daily care like the procedures carried out routinely to make the person comfortable - Morning care, Evening Care, Night Care.
Fowler’s Position
Fowler’s position, also known as sitting position, is typically used for neurosurgery and shoulder surgeries. The beach chair position is often used for nasal surgeries, abdominoplasty, and breast reduction surgeries. When positioning a patient in Fowler’s position, the surgical staff should minimize the degree of the patient’s head elevation as much as possible and always maintain the head in a neutral position. The patient’s arms should be flexed and secured across the body, the buttocks should be padded, and the knees flexed 30 degrees. In Fowler’s position, the patient is at an increased risk for air embolism, skin injury from shearing and sliding, and DVT forming in the patient’s lower extremities. In this position, a patient has an increased pressure risk in their scapulae, sacrum, coccyx, ischium, back of knees, and heels.

High Fowler’s Position
In High Fowler’s position, the patient is usually seated (Fowler’s position) at the head end of the operating table. The upper half of the patient’s body is between 60 degrees and 90 degrees in relation to the lower half of their body. The legs of the patient may be straight or bent.

Supine Position
Supine position, also known as Dorsal Decubitus, is the most frequently used position for procedures. In this position, the patient is face-up. The patient’s arms should be tucked at the patient’s sides with a bedsheets, secured with arm guards to slings. The arms may be flexed and secured across the body or extended and secured on padded armboards. Supine position is commonly used for the following procedures: intracranial, cardiac, abdominal, endovascular, laparoscopic, lower extremity procedures, and ENT, neck and face. In Supine position, the patient may risk pressure ulcers and nerve damage. This position causes extra pressure on the skin and bony prominences over the occiput, scapulae, elbows, sacrum, coccyx and heels.

Jackknife Position
Jackknife position, also known as Kraske, is similar to Knee-Chest or Kneeling positions and is often used for colorectal surgeries. This position places extreme pressure on the knees. While positioning, surgical staff should place extra padding for the knee area.

Kidney Position
The kidney position resembles lateral position, except the patient’s abdomen is placed over a lift in the operating table that bends the body to allow access to the retroperitoneal space. A Kidney rest is placed under the patient at the location of the lift.
Prone Position
In Prone position, the patient is face-down with their head in a neutral position without excessive flexion, extension or rotation. A face positioner is used when the patient’s head is in midline. Prone position is often used for spine and neck surgeries, neurosurgery, colorectal surgeries, vascular surgeries, and tendon repairs. Foam or gel positioners may also be used for spinal procedures. When a patient is in Prone, pressure should be kept off of the eyes, cheeks, ears, and breast. At a minimum, four members of the surgical staff should be available when turning a patient prone. Risks associated with Prone position include increased abdominal pressures, bleeding, compartment syndrome, nerve injuries, cardiovascular compromise, ocular injuries, and venous air embolism.

Lithotomy Position
In Lithotomy position, the patient can be placed in either a boot-style leg holder or strrrup - style position. Modifications to this position include low, standard, high, exaggerated or hemi. This position is typically used for gynecology, colorectal, urology, perineal, or pelvis procedures. The risks posed to a patient in a Lithotomy position for a procedure include fractures, nerve injuries, hip dislocation, muscle injuries, pressure injuries, and diminished lung capacity. While positioning a patient in this position, surgical staff should avoid hyperabduction of the patient's hips and leaning against their inner thighs. Stirrups used on a patient in this position should disperse support and pressure over wide areas.

Sim's Position
The Sims’ position is a variation of the left lateral position. The patient is usually awake and helps with the positioning. The patient will roll to his or her left side. Body restraints are used to safely secure the patient to the operating table. Keeping the left leg straight, the patient will slide the left hip back and bend the right leg. This position allows access to the anus.

Lateral Position
A patient may be positioned in Lateral position during back, colorectal, kidney, and hip surgeries. It’s also commonly used during thoracic and ENT surgeries, and neurosurgery. Some variations on this position include Lateral Kidney, Lateral Chest and Lateral Jackknife positions. In Lateral position, the patient may be placed on either their left or right side depending on the side of the surgical site. A pillow or head positioner should be placed under the patient’s head with the depended ear assessed after positioning.
The patient's physiologic spinal and neck alignment should be maintained during the procedure, and a safety restraint should be secured across the patient's hips. Risks to a patient in Lateral position include pressure to points on the dependent side of the body such as ears, shoulders, ribs, hips, knees and ankles, as well as brachial plexus injury, venous pooling, diminished lung capacity and DVT. A pressure-reducing OR mattress or tabletop pad should be used as needed.

**Trendelenburg Position**

Trendelenburg position is typically used for lower abdominal, colorectal, gynecology, and genitourinary surgeries, cardioversion, and central venous catheter placement. In this position, the patient's arms should be tucked at their sides, and the patient must be secured to avoid sliding on the surgical table. The Trendelenburg position should be avoided for extremely obese patients. Risks to a patient while in this position include diminished lung capacity, diminished tidal volume and pulmonary compliance, venous pooling toward the patient's head, and sliding and shearing.

**Reverse Trendelenburg Position**

Reverse Trendelenburg position is typically used for laparoscopic, gallbladder, stomach, prostrate, gynecology, bariatric and head and neck surgeries. Risks to a patient in this position include deep vein thrombosis, sliding and shearing, perineal nerve, and tibial nerve. Padded food boards should be used to prevent the patient from sliding on the surgical table and reduce the potential for injury to the peroneal and tibial nerves from foot or ankle flexion.

**Some causes of discomfort may be listed as below:**

| o Pain | o Restricted movement due to weakness |
| o Wrinkled, soiled & wet bed-sheets | o Improper arrangement of pillows |
| o Delayed or inadequate attention to meet the personal need such as cleanliness, elimination, nourishment etc | o Lack of exercise |
| o Extreme temperature | o Inadequate ventilation |
| o Indigestion, irregular bowel movements | o Uncomfortable position |
| o Too bright light and glares | o Lack of sleep |
| o Noise | o Fear & Anxiety |
| o Insecurity feeling | o Interruption of daily routines |

**Comfort Devices**

| Pillow | Back Rest |
| Knee Rest | Rolls |
| Foot Rest / Foot Boards | Sand Bags |
| Air & Water Mattress | Rings |
| Bed Cradle | Bed Blocks |
| Air Cushion |  |

![Pictures of some Comfort Devices]
7.5 Care of Paralyzed Patient

Paralysis is the loss of muscle function in part of your body. It happens when something goes wrong with the way messages pass between your brain and muscles. Paralysis of the lower half of your body, including both legs, is called paraplegia. Paralysis of the arms and legs is quadriplegia.

Mostly, paralysis is caused by strokes or a spinal cord injury. Other causes could be nerve or autoimmune diseases or Bell’s palsy.

Hygiene and overall Body Care

When a person suffers from paralysis, it can become increasingly difficult to look after personal hygiene and take care of various body care functions. Depending on the parts of the body that are affected, your loved one may require assistance in carrying out various bodily functions on a daily basis.

- On an everyday basis, make sure you move the patient every two hours, so that there is no risk of any formation of bedsores. If your loved one is not comfortable with making a complete change in posture, help them move from left to right, or assist them to gently get into a sitting up position for some time after lying down for long.
- Look for pressure sores even if your loved one has not complained about it yet. These often form around the waist, hips, shoulder, back and thigh areas, especially if the patient is not very mobile. As the name suggests, a pressure sore is formed when there is constant pressure on a particular part of the body. This happens mostly when the patient does not change position regularly. It is easy to miss spotting pressure sores, but if they are left untreated, it could serious complications later.
- Depending on how much your loved one can move, make sure you help the patient change into fresh clean clothes each day, and if required, multiple times in the day. For the night, help the patient get into something loose and comfortable that will enable them to sleep better and get enough rest.
- Change the bed linen every day. Often, if the patient does most of the things on the bed, such as eating and passing urine, and spends a lot of time in bed, it is possible that the linen gets dirty with spills and such. It is important to change it each day to avoid any risk of infection.
- Look after basic everyday hygiene needs such as passing urine and stool. If the patient is not able to get out of bed repeatedly, you could assist with a bedpan for passing urine. Try supporting the patient until the washroom for when they need to pass stool. There are special washroom wheelchairs available that come designed like a commode seat and can be safely used in the shower.
- Help the patient take a bath each day. In case it is not possible, make sure to keep the person clean by giving a warm sponge bath. Use a mild antibacterial soap and a liquid antibacterial solution to keep infection at bay.
- Take care to assist with basic grooming requirements such as shaving, trimming nails and hair and so on. If you are not comfortable cleaning your loved one around the private areas, you could hire the help of a professional caregiver who will be specially trained to care for bed patients. At Care24, our team of caregivers is equipped to care for those patients who are not able to get out of bed and can help to look after your loved ones with the attention and dignity they deserve.
- Help the patient brush in the morning and once before going to bed. Also, after every meal, help them wash the mouth and if that is not possible, wipe the area clean.
- Taking proper care of a patient with paralysis will help them to recover soon.

Patient movement

It is very important to make sure that you move the paralysis patient properly. There are various mobility aids that can help your loved one move from one place to the other, depending on the overall condition and health of the patient.

- A manual wheelchair will be helpful if the patient has enough strength in the upper body.
- An automated or electric wheelchair will be helpful for a patient who is suffering from paralysis on both sides or does not have enough muscle strength.
- Orthoses are a type of alternative option that can be used in place of a wheelchair. These are a type of braces that are made of either plastic or metal and can help to provide enough strength and support that can facilitate movement.
While buying a wheelchair, remember to keep the following points in mind. Check the size of the seat as well as the comfort of the cushion. Keep the weight of the wheelchair in mind, especially if you have to move the patient around a lot. Also, check the height of the headrest as well as the height of the seat and the leg and armrest.

**Food**

Here is a comprehensive diet when it comes to nursing care of paralysis patient. It is always best to eat food as fresh as possible. It will be warm and the patient will also benefit from the nutrition content

- Give the more salty, sour and sweet flavors. Avoid a bitter or pungent taste.
- Some of the best foods to eat are those that are juicy. Such foods include oranges, sweet lime, peaches, mangoes, and even bananas. Apples and figs or other drier fruits may be given in small quantity or not at all.
- Some very good vegetables that should be included in the diet for paralysis patient which includes vegetables such as beetroot, carrot, and ladyfinger.
- Red meat is not healthy and is not advisable. Instead, let the patient have other meats such as poultry, as well as seafood.

To care for the patient with paralysis does not only need following the proper paralysis diet plan but loving them, taking good care, giving medicine on time, doing the right exercise all these also contribute to taking paralysis patient care.

**Provide Emotional Support**

Most of the cases where a person is diagnosed with paralysis, the first reaction is often of shock and disbelief, followed by depression and self-pity. Anger, frustration and severe mood swings also often are part of this reaction, and in some cases, it can lead to other health issues if the depression is severe and not taken care of in time.

- To make sure that person is not depressed, and to spot the signs and symptoms on time, keep a watch on the following -if one is sleeping a lot or suddenly is not able to sleep at all, if there is a sudden change in weight, such as losing weight or gaining a lot of weight. If one seems disinterested in speaking or engaging in activities that were earlier of interest. If one seems quiet and aloof most of the time. If he/she is talking in negative tones and may talk about self-harm or death. In case they have mentioned anything about self-harm or death, please treat it as an emergency and immediately report to the family or the doctor.
- It is possible that the signs are not seen at once even when they are there, the signs can be very mild and difficult to notice. Keep watching for them without making it obvious.
- In some cases, depression can also be triggered due to the various medications that one has to take for treating paralysis. If the condition is affecting the patient make sure to speak to the doctor about it and ask if any of the medicines need to be changed.
- Change in weight is a common occurrence for those who are not able to move a lot and spend most of their time in bed or in a wheelchair. In such an instance they will be more prone to gaining weight than losing it. However, excessive weight gain is not good, as it can create pressure sores and also lead to other health issues. Check for exercise options that can be practiced at home. In case you notice weight loss, pay attention to healthy food for paralysis patients and eating habits and do bring it up with the doctor & with his help, you can prepare a paralysis food chart.
- It is important to be there for the patient and to understand their fears and concerns. Be around and talk to the patient as much as you can. Listen and let them vent out. It is possible that your loved one becomes negative and loses all hope, but make sure you keep them updated about the treatment and care and tell them how to exercise, eat right and the treatment options can help them cope better.
- Don’t just revolve everything around the topic of paralysis. Make sure that the patient has access to other forms of keeping busy, such as reading, listening to music, watching movies, staying updated with what is happening with other family members and friends and so on. Meeting others and talking about a host of other things will help to take the patient’s mind off the condition and will prevent depression from setting in.
Massage techniques for relief

Massage can provide relief to the patient as well as improve blood circulation in the area, which can be good for overall muscle movement and function. Depending on how much the patient is able to move and what is comfortable, it can either be done on the bed or on the floor on a mat.

A professional massage therapist can assist in a better way using different massage techniques that will benefit the patient. Some ways that massage can work for the body.

- The therapist will use a mix of various medicated and natural oils to massage the affected area.
- The type and intensity of the message will depend on the patients overall health and the level of paralysis. For instance, if only one side of the body is affected, the massage will be of a particular kind. On the other hand, if the patient is suffering from paralysis on both sides of the body, the massage will be different.

Important Care Tips

- Make sure to keep a note of everyday happenings related to patient’s health and any other information. This will help in giving the right information to the doctor on the next visit.
- Write down the information about medicine and dosage and check it each time before administering a dosage.
- While nursing care of paralysis patient notes that not all require the same type of treatment. Understand the cause and speak to the doctor to know of any specific things that has to be kept in mind while caring for the patient. e.g. some people suffer a paralytic attack after an injury, while some may suffer an attack as a result of some other health issue.

Some do’s and don’t that will make it easy for you to provide home care for a paralysed patients:

- Do shift and turn
- Don’t forget Exercise
- Avoid falls & Accidents
- Use Assistive devices
- Do get some fresh air
- Do listen and talk to the patient
- Don’t give up - Encourage the patient

7.6 Care of Visually impaired Patients

Visual impairment may not be obvious. Use of a white cane or a guide dog is an apparent sign, but some patients who have remaining vision may only display subtle signs of vision loss such as: trouble walking safely or inability to find a chair; difficulty finding identification (ID) cards or inability to read small print; holding items close to the eyes to see; or not making direct eye contact during conversation.

Tips to Care for a visually impaired patient

- Always identify yourself when entering a room by name and position. Before manipulating or treating the patient, tell them what you are going to do.
- Orient a person to their surroundings by showing them where the bathroom, door to hallway, phone and call button are using their bed as the reference point.
- If you need to move furniture, water pitcher, personal belongings, always put the object back where it was. If you can’t, be sure the patient knows what you have done.
- Painting the doorframes a dark color would provide good contrast for a person with some vision.
- Control glare in the room by adjusting the shades as necessary.
- Let the patient know where the food is on the tray either by describing it using a clock system or show them using the silverware in their hands.
- Try to use contrast on the tray. If the dishes are a dark color, a white placemat under them may help the person find their plate. Black coffee is more visible in a light colored mug. Coffee with milk is more visible in a dark colored mug.
- Talking books, Audio books or a Maine Airs receiver in a persons’ room may be a welcome change from watching television.
• **Don’t point when giving directions;** instead, use words like “right” or “left.” Remember that when you are facing a person, your right is his/her left. Always give directions according to their orientation.

• **Don’t be afraid to use words like “look”, “see” or “watch”**. Changing your vocabulary will make the person feel awkward.

• **Usually there is no need to speak loudly** to people who are blind or visually impaired; in most cases their hearing is just fine!

• **Use Sighted Guide technique**, when walking with people for exercise.

• **Ask the patient how you can assist them**, rather than assuming you know what they need.

• **When walking with a person in the hallway**, refer to points of orientation as we would (i.e.: walk out of your room and turn left, the nurses station is on your right).

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**Caregiver’s Care:**

*Tips To Avoid Caregiver Stress:*

As someone who is providing the most amount of care, the role of a caregiver comes with immense responsibility as well as stress. One of the first things you need to keep in mind is that it is not easy to perform the role of a caregiver. Looking after a loved one at home who is suffering from paralysis will take up almost all of your time and energy, especially if you plan to do it all by yourself. While you may feel that no one else can look after the patient as well as you can, it is sometimes advisable to ask for help. You can ask someone from your family to fill in as a caregiver while you get some rest, or hire a professional caregiver.

Many caregivers suffer from stress and anxiety which can negatively impact the way you care for your loved one. Some of the most common signs of caregiver stress are sudden outbursts or feelings of anger, overreacting to certain situations, feeling guilty or ashamed or feeling inadequate in your care giving capabilities, trying to take on more responsibilities than you can physically handle and feeling low when you cannot achieve everything, digestive issues, headaches, excessive tiredness, difficulty in falling asleep or feeling sleepy all the time or fluctuation in weight. Take time out for yourself to be away from your caring role. You can try simple yet extremely effective methods such as meditation and yoga to stay calm and maintain your peace of mind. Additionally, try doing some form of exercise on a daily basis, such as a quick jog or run.
QUESTIONS

Section-7
Qs. 1 Name 5 Roles of a Geriatric Care Aide.
Qs. 2 What do you understand by Nebulization?
Qs. 3 Define bed-sores. Give three points of treating bed-sores?
Qs. 4 What do you understand by Paralysis. Name 5 methods to support a person paralysis?
Qs. 5 Give 5 tips of care to visually impaired patient?
Diagnosis Evaluation

Diagnosis Evaluation is the process of finding out if a patient has a specific disease to implement appropriate treatment for the diagnosed disease. Certain pathological or radiological tests are prescribed to make a diagnosis or to exclude possible illness. For some diseases, it is not only important to know what the nature of the disease is but also the degree of development. Doctors may need to know the stage of the disease, its progresses, whether it is stable or in regression. Likewise, diagnostic tests also allow doctors to assess whether the chosen treatment is effective in stopping the progression of the disease.

Monitoring intends to see if the disease is controlled, a purpose that is very common in chronic diseases such as diabetes. Chronic diseases cannot be cured, but patients can avoid getting worse through the use of medications, hormones, or lifestyle changes. Monitoring allows for the control of such diseases.

- **Screening** consists of studying patients who do not yet present any signs or symptoms of a specific illness in order to find out if it has begun to quietly develop and if so, to be able to apply treatment as soon as possible. These tests are applied to large segments of the population and should therefore be simple and cheap. Their primary purpose is not so much diagnosing a disease, but rather identifying those people that may have it.

- **Prognosis** allows clinicians to assess the likelihood a patient has for developing a disease in the future and therefore take precautions earlier rather than later. Genetic tests, for example, analyze a patient's predisposition for developing a disease, allowing the patient and doctor to be more attentive to discovering early signs of the disease and to take preventive measures as needed.

Beyond these purposes of diagnostic tests, it’s important to know that they do not treat patients or cure illnesses, but are an integral step toward both. They do not come into direct contact with the patient as they only need a sample from the patient to produce results. The impact of these results on healthcare decisions is significant and vital, though it also relies on a medical professional's accurate judgment and appropriate choice of treatment. In vitro diagnostic tests serve as a guide providing essential information on health and the care of it.

### 8.1 Basic of diagnostics

The steps of the diagnostic process fall into three broad categories: Initial Diagnostic Assessment - Patient history, physical exam, evaluation of the patient’s chief complaint and symptoms, forming a differential diagnosis, and ordering of diagnostic tests.

#### Terms and Abbreviations

**Amniocentesis** - is a procedure that includes the insertion of a needle into the suprapubic area after the fetus has been located and manually elevated and the aspiration of 5 to 15 ml of amniotic fluid. Ultrasound may be used to locate the placenta and fetal position so that needle contact may be avoided. Amniocentesis is usually performed from the 14th to 16th week of pregnancy; usually never before the 14th week due to insufficient amounts of amniotic fluid.

**Anatomic Pathology** - This field of pathology deals with structural changes. These changes may be apparent to the examiner with the naked eye, or a microscopic examination may be needed.

**Blood Bank (Immunohematology)** - We all know of the responsibility of the blood bank in obtaining, storing, and dispensing blood for transfusions. There are other functions including: obtaining and handling other blood products, some of which are rare; and also research in blood transmitted diseases.

**Bronchography, Bronchogram** - Bronchography is an X-ray examination that visualizes the trachea, bronchi, and the bronchial tree.

**Clinical Chemistry** - This section of the lab performs analyses on whole blood, serum, plasma, urine, and other biological specimens like cerebrospinal fluid, amniocentesis fluid, pleural fluid, peritoneal fluid, and feces.

**Clinical Microbiology** - This section of the lab is involved with a variety of biological specimens such as: urine, feces, blood, sputum, CSF, drainage, exudates, nail, skin, tissue, and swabs from throat, wounds, and other such specimens.
Clinical Pathology - Clinical pathology refers to the section of the pathology lab which applies to the problem of finding solutions to the problems found in the clinical areas. The members of this team include medical technologists, medical scientists, technicians and pathologists. Together they perform tests and investigations into all aspects of disease, including prevention, diagnosis, and treatment.

Cytology - Cytology is the study of the individual cells. This department has cytologists and cytotechnologists who are trained to perform preliminary screening on cells. Any of these suspicious cells are then usually examined by the pathologist.

Cytogenics - Cytogenics is the branch of genetics that studies cellular components concerned with heredity; primarily the structure, function, and origin of the chromosomes.

Diagnostic Test - A Diagnostic Test is an inquiry into a pathological condition. A diagnostic test can be thought of as any test used to help diagnose a pathological condition. However, for our text, we will say that a diagnostic test is a test that involves some type of sophisticated diagnostic equipment and/or lab tests. We will not refer to simple blood and lab tests as diagnostic tests. (Although you could argue that these blood tests, etc. are simple diagnostic tests.) For our text we will reserve diagnostic tests for those more sophisticated tests and procedures.

Erythrocyte - An erythrocyte is a mature Red Blood Cell. Immature red blood cells cannot carry oxygen. Immature red blood cells are true cells and contain a nucleus. The erythrocyte has lost its nucleus and then it "technically" cannot be called a cell. It is a corpuscle. However, many persons still refer to erythrocytes as Red Blood Cells or RBC's.

Fasting Specimen - Instruct the patient not to eat or drink after midnight the night before the test. Do not eat or drink in the morning before the specimen is collected. It is usually a good idea to place a sign on the bed to be sure no one gives the patient food. Again, check with hospital policy, and lab policy. The patient may be allowed small amounts of water prior to some tests.

First Voided Specimen (First morning specimen) - As the name implies, the first specimen of the day is to be obtained. However, some facilities insist the specimen be at a certain time in the morning. Be sure to check policy at your facility.

Hematology - This department is responsible for the quantification of cellular elements, including red and white blood cells and platelets. Many of the tests are today performed by electronic means. However, some of the tests are performed by manual means. Many nurses may have closer contact to this department than most other departments of the lab. The reason for this is that the hematology section performs those tests often seen in patients who are on chemotherapy, anticoagulant therapy, and cardiac therapy, and have frequent blood cell evaluations. Blood coagulation studies are also performed in this section of the lab. The diagnosis and treatment of blood clotting disorders are the two most important functions of this section.

Hemoglobin - Hemoglobin is the main component of Red Blood Corpuscles (RBC's). Hemoglobin is a conjugated protein that "carries" oxygen and transports it to all the body cells. Hemoglobin also carries carbon dioxide from the tissues to the lungs for excretion. Three major types of hemoglobin are found in normal blood; they are: Hgb A, Hgb A2, and Hgb F.

Histology - Histology is the study of the microscopic structure of tissues and cells. Histology technicians prepare frozen sections and surgical and autopsy tissues by slicing them to less than paper thickness, mounting them on slides, and finally staining them with special dyes. The slides will then be examined and interpreted, usually by a pathologist.

Pathology - is the study of disease, its nature and cause. Roles of the pathologist:

1. Provide supervision in the medical laboratory
2. Evaluate laboratory results
3. Identify disease and Evaluate treatment
4. Ascertain the cause of death by means of autopsies
5. Advance medicine through research

Plasma - Plasma is the liquid portion of whole blood after centrifuging. Whole blood is spun in a centrifuge removing the solid portions of the blood, such as red and white blood cells and other solid particles. The plasma is thick and rich with dissolved chemicals and other substances such as proteins and other chemicals.

Random Sample - The term random, refers to taking a sample (any sample) at any time during the day (or night). Random means that you do not have to take the sample at a particular time. Sometimes the sample may have other stipulations. You might have to take the sample on a certain day. If the test is ordered today, you generally take the sample today (unless ordered differently).
Second-Voided Urine Specimen - This is a urine sample obtained after the patient has emptied his/her bladder. Generally the second sample is obtained 30 minutes after the patient has emptied the bladder. However, some hospitals have different policies for this time interval. Some hospitals will have you wait until the patient is ready to void again. Always check with your hospital policy.

8.2 Blood Tests:

Blood glucose test. Blood glucose tests, also sometimes called blood sugar tests, are usually used to check for or monitor diabetes.
- Calcium blood test
- Cardiac enzymes
- Cholesterol and lipid tests
- C-reactive protein (CRP) test
- D-dimer test
- Erythrocyte sedimentation rate (ESR) test
- Folate test

Some of the most common blood tests are:
- A complete blood count (CBC)
- Blood chemistry tests
- Liver function test (LFT)
- Kidney function test (KFT)
- Thyroid hormone test/Thyroid function test
- Blood enzyme tests
- Blood tests to assess heart disease risk

Complete Blood Count
The CBC is one of the most common blood tests. It’s often done as part of a routine checkup. The CBC can help detect blood diseases and disorders, such as anemia, infections, clotting problems, blood cancers, and immune system disorders. This test measures many different parts of your blood, as discussed in the following paragraphs.

RED BLOOD CELLS
Red blood cells carry oxygen from your lungs to the rest of your body. Abnormal red blood cell levels may be a sign of anemia, dehydration (too little fluid in the body), bleeding, or another disorder.

WHITE BLOOD CELLS
White blood cells are part of your immune system, which fights infections and diseases. Abnormal white blood cell levels may be a sign of infection, blood cancer, or an immune system disorder.
A CBC measures the overall number of white blood cells in your blood. A CBC with differential looks at the amounts of different types of white blood cells in your blood.

PLATELETS
Platelets are blood cell fragments that help your blood clot. They stick together to seal cuts or breaks on blood vessel walls and stop bleeding.
Abnormal platelet levels may be a sign of a bleeding disorder (not enough clotting) or a thrombotic disorder (too much clotting).

HEMOGLOBIN
Hemoglobin is an iron-rich protein in red blood cells that carries oxygen. Abnormal hemoglobin levels may be a sign of anemia, sickle cell anemia, thalassemia, or other blood disorders. If you have diabetes, excess glucose in your blood can attach to hemoglobin and raise the level of hemoglobin A1c.
HEMATOCRIT
Hematocrit is a measure of how much space red blood cells take up in your blood. A high hematocrit level might mean you’re dehydrated. A low hematocrit level might mean you have anemia. Abnormal hematocrit levels also may be a sign of a blood or bone marrow disorder.

MEAN CORPUSCULAR VOLUME
Mean corpuscular volume (MCV) is a measure of the average size of your red blood cells. Abnormal MCV levels may be a sign of anemia or thalassemia.

Blood Chemistry Tests/Basic Metabolic Panel
The basic metabolic panel (BMP) is a group of tests that measures different chemicals in the blood. These tests usually are done on the fluid (plasma) part of blood. The tests can give doctors information about your muscles (including the heart), bones, and organs, such as the kidneys and liver. The BMP includes blood glucose, calcium, and electrolyte tests, as well as blood tests that measure kidney function. Some of these tests require you to fast (not eat any food) before the test, and others don’t. Your doctor will tell you how to prepare for the test(s) you’re having.

BLOOD GLUCOSE
Glucose is a type of sugar that the body uses for energy. Abnormal glucose levels in your blood may be a sign of diabetes.
For some blood glucose tests, you have to fast before your blood is drawn. Other blood glucose tests are done after a meal or at any time with no preparation.

CALCIUM
Calcium is an important mineral in the body. Abnormal calcium levels in the blood may be a sign of kidney problems, bone disease, thyroid disease, cancer, malnutrition, or another disorder.

ELECTROLYTES
Electrolytes are minerals that help maintain fluid levels and acid-base balance in the body. They include sodium, potassium, bicarbonate, and chloride. Abnormal electrolyte levels may be a sign of dehydration, kidney disease, liver disease, heart failure, high blood pressure, or other disorders.

THYROID FUNCTION TESTS
These tests can be used to screen for thyroid disorders, or to help calibrate the dosage of thyroid replacement medications. The most commonly used tests are:
- Thyroid stimulating hormone (TSH)
- Free thyroxine (free T4 or Ft4)
- Thyroid problems are common in older adults (especially older women), and are associated with symptoms such as fatigue and cognitive difficulties. If an older person is having symptoms that could be related to a thyroid problem, the first step is to check the TSH level.
- TSH usually reflects the body’s determination of whether the available thyroid hormone is sufficient or not.
- If the thyroid gland is not making enough thyroid hormone, TSH should be higher than normal.
- Free T4 is often used to confirm a thyroid hormone problem, if the TSH is abnormal.

VITAMIN B12 LEVEL TEST
These measure the serum levels of vitamin B12 and provide information as to whether the level is adequate for the body’s needs. The two tests involved are:
- Vitamin B12
- Methylmalonic acid

Depending on the situation, if an older adult is found to have low vitamin B12 levels, additional testing may be pursued, to determine the underlying cause of this vitamin deficiency.
• Vitamin B12 deficiency is quite common in older adults, and can be related to common problems such as fatigue, memory problems, and walking difficulties.
• Methylmalonic acid levels in the body are related to vitamin B12 levels, and can help confirm a vitamin B12 deficiency.
• It is especially important to check this, if an older person has vitamin B12 levels that are on the low side of normal.
• Low vitamin B12 levels are associated with higher-than-normal methylmalonic acid levels.

**GLYCATED HEMOGLOBIN (HEMOGLOBIN A1C)**
Glycated hemoglobin is formed in the body when blood glucose (blood sugar) attaches to the hemoglobin in red blood cells. It is normal for glucose to do this, but if you have more glucose in the blood than normal, your percentage of glycated hemoglobin will be higher than normal. The higher one's average blood sugar level, the greater percentage of glycated hemoglobin one will have. A result of 6.5% or above is suggestive of diabetes. Hemoglobin A1C test is most often done to monitor the blood sugar control of people with diabetes.

- Whereas a blood glucose level (which can be checked by fingerstick or as part of a basic metabolic panel) reports the blood glucose level at a specific moment in time, a hemoglobin A1C reflects how high a person’s blood sugar has been, on average, over the prior three months.
- A hemoglobin A1C test can also be used as part of an evaluation for possible diabetes or pre-diabetes.
- Older adults should work with their doctors to determine what A1C goal is right for them. It is often appropriate to aim for a slightly higher goal in older adults than in younger adults. For more on this,

**KIDNEYS**

**KFT - KIDNEY FUNCTION TEST**
This test is common work blood test wont to appraise how well the kidneys are operating. You have 2 kidneys on either facet of your spine that are every or so the dimensions of a person’s fist. Your kidneys play many important roles in maintaining your health.

Blood tests for kidney function measure levels of blood urea nitrogen (BUN) and creatinine. Both of these are waste products that the kidneys filter out of the body. Abnormal BUN and creatinine levels may be signs of a kidney disease or disorder.

A normal BUN level is between 7 and 20. A higher value could suggest several different health problems. Estimated Glomerular Filtration Rate (GFR): This test estimates how well your kidneys are filtering waste.

**BLOOD ENZYME TEST**
Enzymes are chemicals that help control chemical reactions in your body. There are many blood enzyme tests. This section focuses on blood enzyme tests used to check for Heart Attack. These include troponin and creatine kinase (CK) tests.

**TROPNIN**
Troponin is a muscle protein that helps your muscles contract. When muscle or heart cells are injured, troponin leaks out, and its levels in your blood rise.

For example, blood levels of troponin rise when you have a heart attack. For this reason, doctors often order troponin tests when patients have chest pain or other heart attack signs and symptoms.

**REATINE KINASE**
A blood product called CK-MB is released when the heart muscle is damaged. High levels of CK-MB in the blood can mean that you’ve had a heart attack.

**Blood Tests to Assess Heart Disease Risk**
A lipoprotein panel is a blood test that can help show whether you’re at risk for coronary heart disease (CHD). This test looks at substances in your blood that carry cholesterol.

**A lipoprotein panel gives information about your:**
- Total cholesterol.
- LDL (“bad”) cholesterol. This is the main source of cholesterol buildup and blockages in the arteries. (For more information about blockages in the arteries, go to the Diseases and Conditions Index: Atherosclerosis article.)
- HDL (“good”) cholesterol. This type of cholesterol helps decrease blockages in the arteries.
- Triglycerides. Triglycerides are a type of fat in your blood.
A lipoprotein panel measures the levels of LDL and HDL cholesterol and triglycerides in your blood. Abnormal cholesterol and triglyceride levels may be signs of increased risk for CHD. Most people will need to fast for 9 to 12 hours before a lipoprotein panel.

**BLOOD CLOTTING TESTS**
Blood clotting tests sometimes are called a coagulation (KO-ag-yu-LA-shun) panel. These tests check proteins in your blood that affect the blood clotting process. Abnormal test results might suggest that you're at risk of bleeding or developing clots in your blood vessels. The doctor may recommend these tests if he or she thinks that the patient has a disorder or disease related to blood clotting.

Blood clotting tests also are used to monitor people who are taking medicines to lower the risk of blood clots. Warfarin and heparin are two examples of such medicines.

**LIVER FUNCTION TESTS (LFTs or LFs),**
It is also referred to as a hepatic panel, are groups of **blood tests** that provide information about the state of a patient’s liver. These **tests** include prothrombin time (PT/INR), activated Partial Thromboplastin Time (aPTT), albumin, bilirubin (direct and indirect)

**Liver function tests** (also known as a liver panel) are blood tests that measure different enzymes, proteins, and other substances made by the liver.

**Normal** blood test results for typical liver function **tests** include: ALT. 7 to 55 units per liter (U/L) AST. 8 to 48 U/L

### 8.1 Interpretation of Reports
The definition of an **interpretation** is an explanation of a view of a person, place, work, thing. **Interpretation** is essential for the simple reason that the usefulness and utility of research findings lie in proper **interpretation**. Researcher can better appreciate only through **interpretation** why his findings are what they are and can make others to understand the real significance of his research findings.

**Interpretation and Report writing** Interpretation is the process of making in the sense of numerical data that has been collected, analyzed and presented. The **interpretation** and judgment of **results** are usually **presented** in the Discussion section of a report. It is important to strike a fair balance between the positive and negative **aspects** of the **findings**. For example, positive **findings should** be emphasized without brushing over negative ones.
QUESTION - Section 8

Qs. 1 What do understand by Screening and Prognosis of a patient?
Qs. 2 What happens when the Blood Sugar levels are not in normal range?
Qs. 3 Name three diseases that can be detected by doing a Complete Blood Test?
Qs. 4 Match the following:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Sugar</td>
<td>Hb</td>
</tr>
<tr>
<td>Hemoglobin</td>
<td>HbA1C</td>
</tr>
<tr>
<td>LFT</td>
<td>TSH</td>
</tr>
<tr>
<td>KFT</td>
<td>Kidney</td>
</tr>
<tr>
<td>Thyroid</td>
<td>Lever</td>
</tr>
</tbody>
</table>

Qs. 5 State True or False:

i) HDL is a Good Cholesterol
ii) FBS is a test for Diabetic patients
iii) T4 is associated with Thyroid
iv) RBCs are found in Blood
v) WBC stand for White Blood Cells
Test your knowledge Section -1 to Section-8:

1. Briefly describe four common problems that can affect elderly patients.
2. What are communicable and non-communicable diseases?
3. What are the serious symptoms of covid in which patients require immediate intensive care?
4. Define osteoporosis and note down its symptoms.
5. What are the common symptoms of diabetes?
6. What is the function of nervous system in human body and write down the organs, tissues and structures involved in it?
7. What is the role of immune system in human body. Also write its components.
8. Briefly describe the parts of lungs.
9. Define the following terms:
   - Neutrophils
   - Acute Hypertension
   - Malignant
   - Epidermis
10. Name the components of information and diagnostic services of hospital administration.
11. Describe in short how to measure blood pressure.
12. What do you mean by RDA?
13. Note down the medications and treatments impacting appetite.
14. What is the role of GCA in care of person with special needs?
15. Give some tips for prevention of bedsores.
16. All are aspects of normal ageing except:
   - Sexual
   - Biological
   - Anatomical
   - Psychological
17. Which is common sign of bladder issues:
   - Headache
   - Diarrhea
   - Angina
   - Lower Abdominal Pain and Cloudy Urine
18. What is the principal cause of blindness in the world?
   - Cataract
   - Glaucoma
   - C-Eye Trauma
   - Headache
19. Heart belong to which system of human body:
   - Nervous System
   - Immune System
   - Cardiovascular System
   - Muscular System
20. BD means
   - Thrice a day
   - 4 times a day
   - 2 times a day
   - Once a day
21. Carrots are a source of:
   - Vitamin C
   - Vitamin D
   - Vitamin A
   - Vitamin B

---

1. What is amniocentesis?
2. What are the roles of pathologist?
3. What information can be deduced by lipoprotein panel?
4. What is the function of RBC
Techniques to assist in activities of daily living:

9.1 Bed making

Bed Making:

Bed making is a procedure, which enables the nurse to make the bed. Bed making is the way to prepare the bed as per the condition of the patient needing scientific principles of nursing. Skillful bed-making promotes comfort for the patient. Nurses/assistants need to know and be able to prepare beds in different ways for specific purposes. There may be times when the beds are unoccupied while sometimes when the beds are occupied or for the patient post surgery or may be sometimes surgical bed.

- Bed making helps the bed & patient’s unit look tidy.
- Bed making removes the dirt & germs from patient’s bed.
- Bed making enhances the esthetic looks of the patient’s unit

Hospital beds are commonly made of a combination of metal and plastic. They are generally the size of a twin bed with a little extra length, and are mounted on wheels allowing for mobility. The types of hospital beds include: Curative Care Bed, Long Term Care Bed, Psychiatric Care Bed, Full-Electric, Semi-Electric, Manual, Low Bed, Bariatric, and Trendelenburg. The full-Electric Bed allows electrical adjustment of the height of the bed frame, the height of the header, and the height of the footer.

Precautions to be taken during bed making:

- The uniform of the nurse should not touch the bed while making a bed.
- Soiled linen should not be thrown on floor.
- First lift the mattress while loosening the bed linen or removing the sheets. The sheets should not be pulled forcefully.
- The bed linen should be folded from top to bottom or side-to-side. This applies to fold the mattress also while making one unoccupied bed.
- As self-precaution while tucking bedding under mattress, the palm of the hand should face downwards to prevent injury of nails.
- The open end of the pillow should not face to the entrance of ward.
- The beds should be in one line for better look.

Types of Bed Making for Home Care settings:

- A. Unoccupied Bed Making
- B. Occupied bed making
- C. Post-Operation

General Procedure of Bed making:

- Wash hands
- The bed should be put where it is required.
- The other items are kept on a bench near the bed for convenience. The items should not be brought one from store or storing place.
- The bottom protection or mattress protection dari or mat should be spread first over the bed.
- Then the mattress is spread over the bed.
- The mattress cover is then put on the mattress.
- The bottom sheet is spread over now with the wide hem at the top or head end.
- The sheet is well tucked under the mattress from all sides.
- The rubber sheet or mackintosh sheet is spread at the center & tucked on side to side. Also available are the draw sheets that are water proof at bottom and absorbent on the top. At the same time the top of the draw sheet is placed 45cms from head &about 30cms is tucked under mattress on sides.
A. Making an Un-Occupied Bed

Definition: A bed prepared to receive a new patient is an un-occupied bed.

Purpose

1. To provide clean and comfortable bed for the patient
2. To reduce the risk of infection by maintaining a clean environment
3. To prevent bed sores by ensuring there are no wrinkles to cause pressure points
Equipment required:
1. Mattress (1)
2. Bed sheets (2): Bottom sheet (1), Top Sheet (1)
3. Pillow (1)
4. Pillow cover (1)
5. Mackintosh (1)
6. Draw sheet (1)
7. Blanket (1)
8. Savlon water or Dettol water in basin
9. Sponge cloth (4): to wipe with solution (1), To Dry (1)
   * When bed make is done by two nurses, sponge cloth is needed two each.
10. Kidney tray or paper bag (1)
11. Laundry bag or Bucket (1)
12. Trolley (1)

Fig. 2. Equipment required on a trolley

Procedure: by one nurse

<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Explain the purpose and procedure to the client</td>
<td>• Providing information fosters cooperation &amp; Confirms Consent</td>
</tr>
<tr>
<td>2) Perform hand hygiene.</td>
<td>• To prevent the spread of infection.</td>
</tr>
<tr>
<td>3) Prepare all required equipment and bring the articles to the bedside.</td>
<td>• Organization facilitates accurate skill performance</td>
</tr>
<tr>
<td>4) Move the chair and bed side locker</td>
<td>• It makes space for bed making and helps effective action.</td>
</tr>
<tr>
<td>5) Clean Bed-side locker: Wipe with wet and dry cloth</td>
<td>• To maintain the cleanliness</td>
</tr>
<tr>
<td>6) Clean the mattress:</td>
<td>• To prevent the spread of infection</td>
</tr>
<tr>
<td>1. Stand in right side.</td>
<td></td>
</tr>
<tr>
<td>2. Start wet wiping from top to center and from center to bottom in right side of mattress.</td>
<td></td>
</tr>
<tr>
<td>3. Gather the dust and debris to the bottom.</td>
<td></td>
</tr>
<tr>
<td>4. Collect them into kidney tray.</td>
<td></td>
</tr>
<tr>
<td>5. Give dry wiping as same as procedure2).</td>
<td></td>
</tr>
<tr>
<td>6. Move to left side.</td>
<td></td>
</tr>
<tr>
<td>7. Wipe with wet and dry the left side.</td>
<td></td>
</tr>
<tr>
<td>1. Move to right side. Bottom sheet:</td>
<td>• Unfolding the sheet in this manner allows you to make the bed on one side.</td>
</tr>
<tr>
<td>2. Place and slide the bottom sheet upward over the top of the bed leaving the bottom edge of the sheet.</td>
<td>• A mitered corner has a neat appearance and keeps the sheet securely under the mattress.</td>
</tr>
<tr>
<td>3. Open it lengthwise with the center fold along the bed center.</td>
<td>• Tucking the bottom sheet will be done by turn, the corner of top firstly and the corner of the bottom later.</td>
</tr>
<tr>
<td>4. Fold back the upper layer of the sheet toward the opposite side of the bed.</td>
<td>• To secure the bottom sheet on one side of the bed.</td>
</tr>
<tr>
<td>5. Tuck the bottom sheet securely under the head of the mattress (approximately 20-30cm). (Fig. 3)</td>
<td></td>
</tr>
<tr>
<td>6. Make a mitered corner.</td>
<td></td>
</tr>
<tr>
<td>7. Pick up the selvage edge with your hand nearest the hand of the bed.</td>
<td></td>
</tr>
<tr>
<td>8. Lay a triangle over the side of the bed (Fig. 4)</td>
<td></td>
</tr>
<tr>
<td>9. Tuck the hanging part of the sheet under the mattress. (Fig. 5)</td>
<td></td>
</tr>
<tr>
<td>10. Drop the triangle over the side of the bed. (Fig. 6(a)→6(b))</td>
<td></td>
</tr>
<tr>
<td>11. Tuck the sheet under the entire side of bed. (Fig. 7)</td>
<td>• To secure the bottom sheet on one side of the bed.</td>
</tr>
<tr>
<td>12. Repeat the same procedure at the end of the corner of the bed</td>
<td></td>
</tr>
<tr>
<td>13. Tuck the remainder in along the side</td>
<td></td>
</tr>
<tr>
<td>Step</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>14.</td>
<td>Mackintosh and draw sheet: Mackintosh and draw sheet are additional protection for the bed and serves as a lifting or turning sheet for an immobile client.</td>
</tr>
<tr>
<td>15.</td>
<td>Place a mackintosh at the middle of the bed (if used), folded half, with the fold in the center of the bed.</td>
</tr>
<tr>
<td>16.</td>
<td>Fold in the center of the bed.</td>
</tr>
<tr>
<td>17.</td>
<td>Lift the right half and spread it forward the near Side</td>
</tr>
<tr>
<td>18.</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 3 Tuck the bottom sheet under the mattress

Fig. 4 Picking the selvage and laying a triangle on the bed

Fig. 5 Tucking the hanging part of the sheet under the mattress

Fig. 6a Putting and holding the sheet beside the mattress at the level of top

Fig. 6b Dropping the triangle over the side of the bed

Fig. 7 Tucking the sheet under the entire side of the bed
### What to do:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action 1</th>
<th>Action 2</th>
<th>Action 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3)</td>
<td>Tuck the mackintosh under the mattress.</td>
<td>4) Place the draw sheet on the mackintosh. Spread and tuck as same as procedure 1)-3).</td>
<td>8. Move to the left side of the bed. <strong>Bottom sheet, mackintosh and draw sheet:</strong>&lt;br&gt;1) Fold and tuck the bottom sheet as in the above procedure 7.&lt;br&gt;2) Fold and tuck both the mackintosh and the draw sheet under the mattress as in the above procedure 8.</td>
</tr>
<tr>
<td>9.</td>
<td>Return to the right side. <strong>Top sheet and blanket:</strong>&lt;br&gt;1) Place the top sheet evenly on the bed, centering it in the below 20-30cm from the top of the mattress.&lt;br&gt;2) Spread it downward.&lt;br&gt;3) Cover the top sheet with blanket in the below 1 feet from the top of the mattress and spread downward.&lt;br&gt;4) Fold the cuff (approximately 1 feet) in the neck part&lt;br&gt;5) Tuck all these together under the bottom of mattress. Miter the corner.&lt;br&gt;6) Tuck the remainder in along the side</td>
<td>11. Repeat the same as in the above procedure 10 in left side.</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Return to the right side. <strong>Pillow and pillow cover:</strong>&lt;br&gt;1) Put a clean pillow cover on the pillow.&lt;br&gt;2) Place a pillow at the top of the bed in the center with the open end away from the door.</td>
<td>13. Return the bed, the chair and bed-side table to their proper place.</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Perform hand hygiene</td>
<td>15. Perform hand hygiene</td>
<td></td>
</tr>
</tbody>
</table>

### Explanation

- **Secure the bottom sheet, mackintosh and draw sheet on one side of the bed**
- **A blanket provides warmth.**
- **Making the cuff at the neck part prevents irritation from blanket edge.**
- **Tucking all these pieces together saves time and provides a neat appearance.**
- **To save time in this manner**
- **A pillow is a comfortable measure.**
- **Pillow cover keeps cleanliness of the pillow and neat.**
- **The open end may collect dust or organisms.**
- **The open end away from the door also makes neat.**
- **Bedside necessities will be within easy reach for the client.**
- **It makes well-setting for the next.**
- **Proper line disposal prevents the spread of infection.**
- **To prevent the spread of infection.**

---

Do not let your uniform touch the bed and the floor not to contaminate yourself.
Never throw soiled lines on the floor not to contaminate the floor.
Staying one side of the bed until one step completely made saves steps and time to do effectively and save the time.
B. Making an Occupied Bed

**Definition**

The procedure that used lines are changed to a hospitalized patient is an occupied bed.

**Purpose:**

1. To provide clean and comfortable bed for the patient
2. To reduce the risk of infection by maintaining a clean environment
3. To prevent bedsores by ensuring there are no wrinkles to cause pressure points

**Equipment required:**

1. Bedsheets (2) : Bottom sheet (or bedcover) (1) Top Sheet (1)
2. Draw sheet (1)
3. Mackintosh (1) (if contaminated or needed to change)
4. Blanket (1) (if contaminated or needed to change)
5. Pillow cover (1)
6. Savlon water or Dettol water in bucket
7. Sponge cloth (2) : to wipe with solution (1) To Dry (1)
   * When the procedure is done by 2 nurses, sponge cloth is needed two each.
8. Kidney tray or paper bag (1)
9. Laundry bag or bucket (1)
10. Trolley (1)
**Procedure:** by one nurse

<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Check the client’s identification and condition.</td>
<td>• To assess necessity and sufficient condition</td>
</tr>
<tr>
<td>2. <strong>Explain the purpose and procedure to the client</strong></td>
<td>• Providing information fosters cooperation</td>
</tr>
<tr>
<td>3. Perform hand hygiene</td>
<td>• To prevent the spread of infection.</td>
</tr>
<tr>
<td>4. Prepare all required equipments and bring the articles to the bedside.</td>
<td>• Organization facilitates accurate skill performance</td>
</tr>
<tr>
<td>5. Close the curtain or door to the room. Put screen.</td>
<td>• To maintain the client’s privacy.</td>
</tr>
<tr>
<td>6. Remove the client’s personal belongings from bed-side and put then into the bed-side locker or safe place.</td>
<td>• To prevent personal belongings from damage and loss.</td>
</tr>
<tr>
<td>7. Lift the client’s head and move pillow from center to the left side.</td>
<td>• The pillow is comfortable measure for the client.</td>
</tr>
<tr>
<td>8. Assist the client to turn toward left side of the bed. Adjust the pillow. Leaves top sheet in place.</td>
<td>• Moving the client as close to the other side of the bed as possible gives you more room to make the bed. • Top sheet keeps the client warm and protect his or her privacy.</td>
</tr>
<tr>
<td>9. Stand in right side:</td>
<td>• Placing folded (or rolled) soiled linen close to the client allows more space to place the clean bottom sheets.</td>
</tr>
<tr>
<td>10. <strong>Loose bottom bed linens. Fanfold (or roll) soiled linens from the side of the bed</strong> and wedge them close to the client.</td>
<td>• Soiled linens can easily be removed and clean linens are positioned to make the other side of the bed.</td>
</tr>
<tr>
<td>11. <strong>Wipe the surface of mattress by sponge cloth with wet and dry.</strong></td>
<td>• To prevent the spread of infection.</td>
</tr>
<tr>
<td>12. <strong>Bottom sheet, mackintosh and draw sheet:</strong></td>
<td>• Moving the client to the bed’s other side allows you to make the bed on that side.</td>
</tr>
<tr>
<td>1. Place the clean bottom sheet evenly on the bed folded lengthwise with the center fold as close to the client’s back as possible.</td>
<td>• Soiled linens can contaminate your uniform, which may come into contact with other clients.</td>
</tr>
<tr>
<td>2. Adjust and tuck the sheet tightly under the head of the mattress, making mitered the upper corner.</td>
<td></td>
</tr>
<tr>
<td>3. Tighten the sheet under the end of the mattress and make mitered the lower corner.</td>
<td></td>
</tr>
<tr>
<td>4. Tuck in alongside.</td>
<td></td>
</tr>
<tr>
<td>5. Place the mackintosh and the draw sheet on the bottom sheet and tuck in them together.</td>
<td></td>
</tr>
<tr>
<td>13. Assist the client to roll over the folded (rolled) linen to right side of the bed. Read just the pillow and top sheet.</td>
<td></td>
</tr>
<tr>
<td>14. <strong>Move to left side:</strong></td>
<td>•</td>
</tr>
</tbody>
</table>
### 16. Bottom sheet, mackintosh and draw sheet:

<table>
<thead>
<tr>
<th>What to do</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Grasp clean linens and gently pull them out from under the client.</td>
<td>Wrinkled linens can cause skin irritation.</td>
</tr>
<tr>
<td>2) Spread the move the bed's unmade side. Pull the linens taut.</td>
<td></td>
</tr>
<tr>
<td>3) Tuck the bottom sheet tightly under the head of the mattress and miter the corner.</td>
<td></td>
</tr>
<tr>
<td>4) Tighten the sheet under the end of the mattress and make mitered the lower corner.</td>
<td></td>
</tr>
<tr>
<td>5) Tuck in alongside.</td>
<td></td>
</tr>
<tr>
<td>6) Tuck the mackintosh and the draw sheet under the mattress.</td>
<td></td>
</tr>
</tbody>
</table>

### 17. Assist the client back to the center of the bed.

- Adjust the pillow.

### 18. Return to right side:

#### Clean top sheet, blanket:

<table>
<thead>
<tr>
<th>What to do</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Place the clean top sheet at the top side of the soiled top sheet.</td>
<td>Tucking these pieces together saves time and provides neat, tight corners.</td>
</tr>
<tr>
<td>2) Ask the client to hold the upper edge of the clean top sheet.</td>
<td></td>
</tr>
<tr>
<td>3) Hold both the top of the soiled sheet and the end of the clean sheet with right hand and withdraw to downward. Remove the soiled top sheet and put it into a laundry bag (or a bucket).</td>
<td></td>
</tr>
<tr>
<td>4) Place the blanket over the top sheet. Fold top sheet back over the blanket over the client.</td>
<td></td>
</tr>
<tr>
<td>5) Tuck the lower ends securely under the mattress. Miter corners.</td>
<td></td>
</tr>
<tr>
<td>6) After finishing the right side, repeat the left side.</td>
<td></td>
</tr>
</tbody>
</table>

### 19. Remove the pillow and replace the pillow cover with clean one and reposition the pillow to the bed under the client’s head.

- The pillow is a comfortable measures for a client

### 20. Replace personal belongings back. Return the bed-side locker and the bed as usual.

- To prevent personal belongings from loss and provide safe surroundings

### 21. Return all equipments to proper place.

- To prepare for the next procedure

### 22. Discard linens appropriately. Perform hand hygiene.

- To prevent the spread of infection.
C. Making a Post-operative Bed

Definition:
It is a special bed prepared to receive and take care of a patient returning from surgery.

![Post-operative bed](image)

Fig. 9 Post-operative bed

Purpose:
1. To receive the post-operative client from surgery and transfer him/her from a stretcher to a bed
2. To arrange client’s convenience and safety

Equipment required:
1. Bed sheets: Bottom sheet (1) Top sheet (1)
2. Draw sheet (1-2)
3. Mackintosh or rubber sheet (1-2)
   * According to the type of operation, the number required of mackintosh and draw sheet is different.
4. Blanket (1)
5. Hot water bag with hot water (104-140°F) if needed (1)
6. Tray1 (1)
7. Thermometer, stethoscope, sphygmomanometer: 1 each
8. Spirit swab
9. Artery forceps (1)
10. Gauze pieces
11. Adhesive tape (1)
12. Kidney tray (1)
13. Trolley (1)
14. IV stand
15. Client’s chart
16. Client’s kardex
17. According to doctor’s orders:
   - Oxygen cylinder with flow meter
   - O2 cannula or simple mask
   - Suction machine with suction tube
   - Airway
   - Tongued depressor
   - SpO2 monitor
   - ECG
   - Infusion pump, syringe pump
**Procedure: by one nurse**

<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform hand hygiene</td>
<td>● To prevent the spread of infection</td>
</tr>
<tr>
<td>2. Assemble equipments and bring bed-side</td>
<td>● Organization facilitates accurate skill performance</td>
</tr>
<tr>
<td>3. Strip bed. <strong>Make foundation bed</strong> as usual with a large mackintosh and</td>
<td>● Mackintosh prevents bottom sheet from wetting or soiled by sweat, drain or excrement.</td>
</tr>
<tr>
<td>cotton draw sheet.</td>
<td>● Place mackintosh according to operative technique.</td>
</tr>
<tr>
<td></td>
<td>● Cotton draw sheet makes the client felt dry or comfortable without touching the mackintosh</td>
</tr>
<tr>
<td></td>
<td>directly.</td>
</tr>
<tr>
<td>4. Place top bedding as for closed bed but do not tuck at foot</td>
<td>● Tuck at foot may hamper the client to enter the bed from a stretcher</td>
</tr>
<tr>
<td>5. Fold back top bedding at the foot of bed. (Fig. 10)</td>
<td>● To make the client’s transfer smooth</td>
</tr>
<tr>
<td>6. Tuck the top bedding on one side only. (Fig. 11)</td>
<td>● Tucking the top bedding on one side stops the bed linens from slipping out of place and</td>
</tr>
<tr>
<td>7. On the other side, do not tuck the top sheet.</td>
<td>● The open side of bed is more convenient for receiving client than the other closed side.</td>
</tr>
<tr>
<td>1) Bring head and foot corners of it at the center of bed and form right</td>
<td></td>
</tr>
<tr>
<td>angles. (Fig. 12)</td>
<td></td>
</tr>
<tr>
<td>2) Foldback suspending portion in 1/3 (Fig. 13) and repeat folding top</td>
<td></td>
</tr>
<tr>
<td>bedding twice to opposite side of bed (Fig. 14, 15)</td>
<td></td>
</tr>
<tr>
<td>8. Remove the pillow.</td>
<td>● To maintain the airway</td>
</tr>
<tr>
<td>9. Place a kidney-tray on bed-side.</td>
<td>● To receive secretion</td>
</tr>
<tr>
<td>10. Place IV stand near the bed.</td>
<td>● To prepare it to hang I/V soon</td>
</tr>
<tr>
<td>11. Check locked wheel of the bed.</td>
<td>● To prevent moving the bed accidentally when the client is shifted from a stretcher to the bed.</td>
</tr>
<tr>
<td>12. Place hot water bags (or hot bottles) in the middle of the bed and</td>
<td>● Hot water bags (or hot bottles) prevent the client from taking hypothermia</td>
</tr>
<tr>
<td>cover with fan folded top if needed</td>
<td></td>
</tr>
<tr>
<td>13. When the patient comes, remove hot water bags if put before</td>
<td>● To prepare enough space for receiving the client</td>
</tr>
<tr>
<td>14. Transfer the client:</td>
<td>● To prevent the client from chilling and/or having hypothermia</td>
</tr>
<tr>
<td>1) Help lifting the client in to the bed</td>
<td></td>
</tr>
<tr>
<td>2) Cover the client by the top sheet and blanket immediately</td>
<td></td>
</tr>
<tr>
<td>3) Tuck top bedding and miter a corner in the end of the bed.</td>
<td></td>
</tr>
</tbody>
</table>
Fig. 10 Folding back top bedding at the foot

Fig. 11 Tucking the top bedding on left side

Fig. 12 Bringing both head and foot corner to the center and forming right angles

Fig. 13 Folding 1/3 side of top bedding at right side

Fig. 14 Rolling top bedding again

Fig. 15 Folding it again and complete top bedding Rolling top bedding again
9.1 Equipment used in hospital

Some Common Equipment Used in Hospital:

**SpO2 Monitor**

SpO2 stands for peripheral capillary *oxygen saturation*, an estimate of the amount of oxygen in the blood.

SpO2 is an estimate of arterial *oxygen saturation*, or SaO2, which refers to the amount of oxygenated haemoglobin in the blood. Haemoglobin is a protein that carries oxygen in the blood.

**Ventilator**

Modern ventilators display real-time information in the form of waveforms. Common waveforms are pressure-time, flow-time, and volume-time.

A ventilator-assisted breath can be divided into various parts: breath initiation, breath delivery, breath termination and mechanical exhalation.

**Suction machine**

Suction machines or aspirators are tracheostomy-care devices used for removing obstructions from a person’s airway. The *machine* uses *suction* to pull out mucus, saliva, blood, secretions or other fluids clearing the airway for easy breathing.

**ECG machine**

An ECG is a simple, non-invasive procedure. Electrodes are placed on the skin of the chest and connected in a specific order to a *machine* that, when turned on, measures electrical activity all over the heart. Output usually appears on a long scroll of paper that displays a printed graph of activity on a computer screen.

**Stretcher**

A stretcher, litter, or pram is an apparatus used for moving patients who require medical care.

Stretchers are primarily used in acute out-of-hospital care situations by emergency medical services (EMS), military, and search and rescue personnel.
Defibrillator

Defibrillators are devices that restore a normal heartbeat by sending an electric pulse or shock to the heart. They are used to prevent or correct an arrhythmia, a heartbeat that is uneven or that is too slow or too fast. Defibrillators can also restore the heart’s beating if the heart suddenly stops.

Sterilizers

Sterilization refers to any process that removes, kills, or deactivates all forms of life (in particular referring to microorganisms such as fungi, bacteria, viruses, spores, unicellular eukaryotic organisms such as Plasmodium, etc.)

Surgical light

Three components of surgical lights are essential: a light source should (1) center on the surgeon’s immediate field, (2) illuminate with high-intensity light, and (3) viably penetrate into surgical cavities or under flaps.

Surgical table

Sometimes known as a surgical table or operation table, operating tables are typically used within an operating room or surgical suite of a hospital, ambulatory surgery center, or other healthcare facilities where surgeries are performed. Operating tables may be either stationary or mobile to move room to room. Ital care situations by emergency medical services (EMS), military, and search and rescue personnel.

Cardiac table

Surgery is often used to treat complications of ischemic heart disease, valvular heart disease, congenital heart disease, rheumatic heart disease and atherosclerosis. The most common procedure performed by cardiac surgeons to treat these conditions is a coronary artery bypass graft.

9.1 Perineal care, Oral care

Perineal Care

Perineal care involves cleansing of the clients external genitalia, anal area and surrounding skin. It also involves washing the external genitalia with soap & water alone or in combination with any commercially prepared periwash. It may be carried out as a part of client’s bath or as a separate procedure. Perineal area is conducive to the growth of pathogenic organism because it is warm, moist and is not well ventilated. Cleanliness is essential to prevent bad odor and promote comfort.
Principals of Perineal Care

- To clean the perineum from the cleanest to the less clean area
- Follow standard precautions
- Maintain clients privacy
- Proximal level functioning

Equipment Required:

- Bath blanket
- Soap and soap dish
- Toiletry items
- Toilet tissue or diaper wipes
- Water-proof pad or bed pan
- Disposal gloves
- Laundry bag
- Solution bottle or prescribed rinsing solution
- Cotton balls or swabs
- Perineal pads
- Bath basin with warm water (43°C to 46°C or 110°F to 115°F)
- Washcloth and bath

Clients/Patients who need frequent perineal care are:

- Those who are unable to do self care
- Who have genito-urinary tract infection
- Who are with fecal & urinary incontinence
- With in dwelling foley catheter
- Who are recovering from rectal or genital surgery or childbirth
- With excessive vaginal drainage
- With injury and ulcers
- Un circumcised males
- Morbid obesity
- Weakness or tiredness
- With pain or discomfort
- With medically imposed restriction
- Neuromuscular musculoskeletal impairment
- Decreased or lack of motivation
Oral Care

A modest decrease in saliva production occurs with age and can be decreased further by some drugs. The decrease in saliva causes dry mouth (xerostomia). The gums may get thinner and begin to recede. Older people who lose some or all of their teeth will likely need partial or full dentures and/or implants.

Brush at least twice a day with a fluoride-containing toothpaste. Floss at least once a day. Rinse with an antiseptic mouthwash once or twice a day. Visit your dentist on a regular schedule for cleaning and an oral exam.

Taking care of elderly teeth and gums is just as important as digestive or heart health. Research has shown that there is a connection between gum disease and heart disease. Maintaining good oral hygiene is a powerful weapon against heart attacks, strokes and other heart disease conditions.

Your mouth changes as you age. The nerves in your teeth can become smaller, making your teeth less sensitive to cavities or other problems. If you don’t get regular dental exams, this in turn can lead to these problems not being diagnosed until it is too late.

Caused by plaque and made worse by food left in teeth, use of tobacco products, poor-fitting bridges and dentures, poor diets, and certain diseases, such as anemia, cancer, and diabetes, this is often a problem for older adults. Tooth loss. Gum disease is a leading cause of tooth loss.

Impaired oral health, such as an inability to chew or swallow food, having missing teeth or gum disease, can negatively impact nutritional intake (e.g., consuming fewer meals or meals with lower nutritional value) leading to poor nutritional status and increased risk of malnutrition.

Assisting the patient with Oral care:
(Procedure)

1. Sit in front of the elderly, and remove his/her denture(s)
2. If the elderly lost some of his natural teeth, use single-tuft toothbrush to brush around the tooth and along the gum margin
3. After tooth brushing, use floss holder and inter-dental brush to clean the inter-dental surfaces of the teeth for the elderly
4. Brush gently with small circular movements
5. Brush around each tooth and gently and carefully along the gum line Brush the tongue lightly to help keep your loved one’s mouth clean. Encourage them to spit the toothpaste out, but not to rinse, as this can lessen the benefit from the fluoride
<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explain the procedures</td>
<td>• Providing information fosters cooperation, understanding and participation in care</td>
</tr>
<tr>
<td>2. Collect all instruments required</td>
<td>• Organization facilitates accurate skill performance</td>
</tr>
<tr>
<td>3. Close door and/or put screen</td>
<td>• To maintain privacy</td>
</tr>
<tr>
<td>4. Perform hand hygiene and wear disposable gloves if possible</td>
<td>• To prevent the spread of infection</td>
</tr>
<tr>
<td>5. If you use solutions such as sodium bicarbonate, prepare solutions required.</td>
<td>• Solutions must be prepared each time before use to maximize their efficacy</td>
</tr>
<tr>
<td>6. Assist the client a comfortable upright position or sitting position</td>
<td>• To promote his/her comfort and safety and effectiveness of the care including oral inspection and assessment</td>
</tr>
<tr>
<td>7. Inspect oral cavity</td>
<td>• Comprehensive assessment is essential to determine individual needs</td>
</tr>
<tr>
<td>1) Inspect whole the oral cavity, such as teeth, gums, mucosa and tongue, with the aid of gauze-padded tongue depressor and torch</td>
<td>• Some clients with anemia, immune suppression, diabetes, renal impairment epilepsy and taking steroids should be paid attention to oral condition. They may have complication in oral cavity.</td>
</tr>
<tr>
<td>2) Take notes if you find any abnormalities, e.g., bleeding, swollen, ulcers, sores, etc.</td>
<td></td>
</tr>
<tr>
<td>8. Place face towel over the client chest or on the thigh with mackintosh (Fig. 16)</td>
<td>• To prevent the clothing form wetting and not to give uncomfortable condition</td>
</tr>
<tr>
<td>9. Put kidney tray in hand or assist the client holding a kidney tray</td>
<td>• To receive disposal surely</td>
</tr>
</tbody>
</table>

Fig16 Setting the kidney tray up with face towel covered mackintosh
9.4 Hair Care, Nail Care

Hair Care

Ensure you are using lukewarm water and slowly pour it over the hair until it is wet. You can also use a shower-head set on low pressure, and gently run the water through their hair. Use a mild shampoo. Elderly hair has a different structure which needs careful handling.

- Shampoos that have natural oils like argan and/or coconut moisturize the hair.
- Conditioners that have hydrolyzed keratin (protein), and/or olive oil and shea butter.
- Oil hair masks can add moisture to the hair.
- A boar bristle brush is easier on the hair and may reduce breakage.

---

<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Instruct the client to brush teeth</td>
<td>- Effective in dislodging debris and dental plaque from teeth and gingival margin</td>
</tr>
<tr>
<td>Points of instruction</td>
<td>- Cleansing posterior direction of the tongue may cause the gag reflex</td>
</tr>
<tr>
<td>1) Client places a soft tooth brush at a 45° angle to the teeth.</td>
<td></td>
</tr>
<tr>
<td>2) Client brushes in direction of the tips of the bristles under the gum line with tooth paste. Rotate the bristles using vibrating or jiggling motion until all outer and inner surfaces of the teeth and gums are clean.</td>
<td></td>
</tr>
<tr>
<td>3) Client brushes biting surfaces of the teeth</td>
<td></td>
</tr>
<tr>
<td>4) Client clean tongue from inner to outer and avoid posterior direction.</td>
<td></td>
</tr>
<tr>
<td>11. If the client cannot tolerate toothbrush (or cannot be available toothbrush), form swabs or cotton balls can be used</td>
<td>- When the client is prone to bleeding and/or pain, toothbrush is not advisable</td>
</tr>
<tr>
<td>12. Rinse oral cavity</td>
<td>- To make comfort and not to remain any fluid and debris</td>
</tr>
<tr>
<td>1) Ask the client to rinse with fresh water and void contents into the kidney tray.</td>
<td>- To reduce potential for infection and</td>
</tr>
<tr>
<td>2) Advise him/her not to swallow water. If needed, suction equipment is used to remove any excess.</td>
<td></td>
</tr>
<tr>
<td>13. Ask the client to wipe mouth and around it.</td>
<td>- To make comfort and provide the well-appearance</td>
</tr>
<tr>
<td>14. Confirm the condition of client’s teeth, gums and tongue. Apply lubricant to lips.</td>
<td>- To moisturize lips and reduce risk for cracking</td>
</tr>
<tr>
<td>15. Rinse and dry tooth brush thoroughly. Return the proper place for personal belongings after drying up.</td>
<td>- To prevent the growth of micro organisms</td>
</tr>
<tr>
<td>16. Replace all instruments</td>
<td>- To prepare equipments for the next procedure</td>
</tr>
<tr>
<td>17. Discard dirt properly and safety</td>
<td>- To maintain standard precautions</td>
</tr>
<tr>
<td>18. Remove gloves and wash your hands</td>
<td>- To prevent the spread of infection</td>
</tr>
<tr>
<td>19. Document the care and sign on the records.</td>
<td>- Documentation provides ongoing data collection and coordination of care</td>
</tr>
<tr>
<td>20. Report any findings to senior staffs</td>
<td>- Giving signature maintains professional Accountability</td>
</tr>
<tr>
<td>20. Report any findings to senior staffs</td>
<td>- To provide continuity of care</td>
</tr>
</tbody>
</table>
In short, that means **there’s** no single **washing** frequency that works best for everyone. Generally speaking, older adults may only need to **wash their hair** around once per week. For **seniors** who are hesitant to **wash** with greater frequency, dry shampoos can be effective in the days between wet **washing**.

### Equipments required:

1. Mackintosh (2) : to prevent wet (1) and to make Kelly pad (1)
2. Big towel (2): to cover mackintosh(1) and to round the neck (1)
3. Middle towel (1)
4. Shampoo or soap (1)
5. Hair oil (1) : if necessary
6. Brush, comb : (1)
7. Paper bag (2) : for clean (1) and dirty (1)
8. Cotton-ball with oil or non-refined cotton
9. Bucket (2) : for hot water(1) and for wasted water (1)
10. Plastic jug (1)
11. Cloth pin or clips (2)
12. Steel Tray (1)
13. Kidney tray (1)
14. Cushion or pillow (1)
15. Clean cloth if necessary
16. Old news paper
17. Trolley (1)

### Procedure:

<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform hand hygiene</td>
<td>● To prevent the spread of infection</td>
</tr>
<tr>
<td>2. Gather all equipments</td>
<td>● Organization facilitates accurate skill performance</td>
</tr>
<tr>
<td>3. Check the condition of client. Explain the purpose and the procedure to the client</td>
<td>● Proper explanation may allay his/her anxiety and foster cooperation</td>
</tr>
<tr>
<td>4. Bring and setup all equipment to the bed-side</td>
<td>● To save the time and promote effective care</td>
</tr>
<tr>
<td>5. Help the client move his/her head towards edge of the bed and remove the pillow from the head</td>
<td>● To arrange appropriate position with considering your body mechanics</td>
</tr>
<tr>
<td>6. Put another pillow or a cushion under the bending knee. Make him/her comfortable Position</td>
<td>● Putting a pillow or a cushion could prevents from having some pain while the hair washing process</td>
</tr>
<tr>
<td>7. Setting mackintosh and towel to the client:</td>
<td>● To prevent the sheet from soiling</td>
</tr>
<tr>
<td>1) Place a mackintosh covered a big towel under the upwards from the client head to the shoulders of client</td>
<td>● To prevent the cloth and the body from soling</td>
</tr>
<tr>
<td>2) Have a big towel around his/her neck</td>
<td>● To induce water drainage</td>
</tr>
<tr>
<td>3) Roll another mackintosh to make the shape of a funnel, by using the way to hold from both sides in a slanting way. The narrow end should be folded and put under the client’s neck and the free end should be put into the bucket to drain for the waste water.</td>
<td></td>
</tr>
</tbody>
</table>
8. Washing:
1) Brush the hair.
2) Insert the cotton balls into the ears
3) Wet the hair by warm water and wash it roughly
4) Apply soap or shampoo and massage the scalp well while washing the hair using finger nails
5) Rinse the hair and reapply shampoo for a second washing, if indicated
6) Rinse the hair thoroughly
7) Apply conditioner if requested or if the scalp appears dry

- To remove dandruff and fallen hairs, and make the hair easier washing
- To prevent water from entering into the ears

9. Wrapping the hair:
1) Remove the cotton balls from the ears into the paper bag and mackintosh with the towel from the client’s neck.
2) Wrap the hairs in the big towel which are used to cover the client’s neck part.

10. Drying the hair:
1) Wipe the face and neck if needed
2) Dry the hair as quick as possible
3) Massage the scalp with oil as required
4) Comb the hair and arrange the hair according to the client’s preference
5) Make the client tidy and provide comfortable Position

- To prevent him / her from becoming chilled
- To increase circulation of the scalp and promote sense of well-being
- To raise self-esteem

10. Clean the equipments and replace them to proper place. Discard dirty.

11. Perform hand hygiene

- To prepare for the next procedure

12. Document the condition of the scalp, hair and any abnormalities on the chart with your signature. Report any abnormalities to senior staff.

- Documentation provides coordination of care
- Giving signature maintains professional accountability

Nail Care
To properly cut your thick toenails, follow these steps:
- Soak the feet in warm water for at least 10 minutes to soften the nails, and then use a towel to thoroughly dry the feet and toenails.
- Using a nail clipper, make small cuts to avoid splintering the nail and cut straight across.

Keep your feet clean. Wash them every day in warm water and dry them carefully. You can use a moisturizer to keep the skin from drying out, but don't put it between your toes. Wear soft, absorbent, clean socks made of natural fibers such as cotton, and change them often.

Your nails also change with age. They grow more slowly and may become dull and brittle. They may also become yellowed and opaque. Nails, particularly toenails, may become hard and thick.
Podiatrist or Pedicurist; That is the Question

If your elderly relative has severe underlying medical conditions you should consult a podiatrist. A professional pedicure may be adequate foot care for most seniors, but sometimes the expertise of a podiatrist is necessary.

(Unlike toe nails, which should be cut by a podiatrist, gentle filing or cutting of fingernails with clippers – not scissors - is OK, providing care workers are trained and competent, and the provider has checked the individual does not have a condition or disorder relating to circulation or blood thinning.)

Equipment required:

- Nail Cutter (1)
- Galli pot with water (1) : for cotton
- Kidney tray (1)
- Sponge cloth (1)
- Middle towel (1)
- Mackintosh (1)
- Plastic bowl in small size (1)
- Soap with soap dish (1)

Procedure: Caring for Fingernails

<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform hand hygiene</td>
<td>● To prevent the spread of infection</td>
</tr>
<tr>
<td>2. Gather all the required equipments.</td>
<td>● Organization facilitates accurate skill performance</td>
</tr>
<tr>
<td>6. Check the client’s identification.</td>
<td>● To assess needs</td>
</tr>
<tr>
<td>7. Explain to the client about the purpose and the procedure.</td>
<td>● Providing explanation fosters cooperation</td>
</tr>
<tr>
<td>8. Put all the required equipment to the bed-side and set up it.</td>
<td>● To save the time and promote effective care</td>
</tr>
<tr>
<td>9. Assist the client to a comfortable upright position.</td>
<td>● To provide for comfort</td>
</tr>
<tr>
<td>10. In sitting position:</td>
<td>● Mackintosh can prevent the sheet from wetting</td>
</tr>
<tr>
<td>1) Soaking</td>
<td>● To make nails soft, thereby you can cut nails easily and safety</td>
</tr>
<tr>
<td>(1) Put a mackintosh with covering towel on the bed.</td>
<td>● Special orders are required before cutting the nails or cuticles of a client with diabetes to avoid accidental injury to soft tissues.</td>
</tr>
<tr>
<td>(2) Put the basin with warm water over the mackintosh.</td>
<td></td>
</tr>
<tr>
<td>(3) Soak the client’s fingers in a basin of warm Water and mild soap.</td>
<td></td>
</tr>
<tr>
<td>(4) Scrub and wash them up.</td>
<td></td>
</tr>
<tr>
<td>(5) Dry the client’s hands thoroughly by using the middle towel covering the mackintosh.</td>
<td></td>
</tr>
<tr>
<td>2) Cutting</td>
<td></td>
</tr>
<tr>
<td>(1) Trim the client’s nails with nail clippers.</td>
<td></td>
</tr>
<tr>
<td>(2) Wipe all fingernails from thumb to 5 th nail side by side by wet cotton ball. One cotton ball is used for one nail finger.</td>
<td></td>
</tr>
<tr>
<td>(3) Shape the fingernails with a file, rounding the corners and wipe both hands by a sponge towel.</td>
<td></td>
</tr>
<tr>
<td>8. Replace equipments and discard dirty.</td>
<td>● To prepare equipment for the next procedure</td>
</tr>
<tr>
<td>9. Perform hand hygiene.</td>
<td>● To prevent the spread of infection</td>
</tr>
</tbody>
</table>
**Procedure: Caring for Toenails**

Follow the same procedure as for the fingernails with some exceptions:

<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1) Cutting</td>
<td>● Cutting into the corners may cause in grown nails. If the nails tend to grow inward at the corners, place a wisp of cotton under the nail to prevent toe pressure.</td>
</tr>
<tr>
<td>(1) Cut toe nails straight across and do not round off the corners</td>
<td>● A notch cut in the center will pull in edges and corners. Sometimes, very thick, hard toenails require surgical removal.</td>
</tr>
<tr>
<td>(2) Do not shape corners</td>
<td></td>
</tr>
</tbody>
</table>

**NURSING ALERT-**

Never cut the toe nails of the clients with diabetes or hemophilia. These clients are particularly susceptible to injury.

9.5 Bed Pan, Enema, Suppositories

**Bed Pan**

The part of the bed pan that looks like a toilet seat is what goes under the buttocks. As the aide would definitely get exposed to the body fluids during this process thus gloves are mandatory. Put on the gloves before placing the underpad on the bed to avoid any spill. Ensure privacy of the patient/client. Get the knees to bend and place them flat on the bed and lift the hips off to place the bed pan under the buttocks. Ask whether this position is comfortable. The head of the bed should be flat. If the patient cannot lift the hips then make him/her turn on one side to place the bedpan under the buttocks and then turn them back. Now raise the head of the bed to promote natural position. Do not touch the bed controls with the contaminated gloves. Remove the gloves before elevating the bed. Make sure the toilet paper is available and the call light or bell. Close the curtain for total privacy. In the meantime get another pair of gloves. On call of the patient put on the gloves and hold the front of the bedpan down and lift the hips if the patient. Remove the under-pad and bedpan, wrapping the bedpan and transport it to the bathroom. Dump the Body fluids into the toilet and the contents of the bedpan disposed of in the toilet. Rinse the bedpan and deposit the water in the toilet itself. Clean the bedpan as per the cleaning procedure for other patient use items. Wash Patients hands and wipe with dry paper towel and collect the wipe with a dry paper towel. Wash your hands properly with soap and water and close the procedure.

**Enema**

In the elderly, chronic constipation can lead to fecal impaction and fecal incontinence. Fecal impaction is the accumulation of hardened feces in the colon or rectum. Liquid stools from the proximal colon can bypass the impacted stool, causing overflow incontinence, often mistaken for diarrhea. Enema certainly can be helpful as “rescue therapy,” to prevent a painful fecal impaction if an older person hasn’t had a bowel movement for a few days. But they should not be used every day. Frequent use of enemas is really a sign that a person needs a bowel maintenance regimen. Remove the cap from the nozzle of the enema. Gently insert the tip of the nozzle into the anus, and continue inserting it 10 centimeters (3-4 inches) into the rectum. Slowly squeeze the liquid from the container until it is empty then gently remove the nozzle from the rectum. Wait for the enema to take effect.

**Effective home remedies for relieving constipation in seniors**

- Avoid constipating foods like
- Regularly eat (and drink) foods like
- Establish a regular bathroom time and also respond immediately to the urge to go
- Take a daily soluble fiber supplementge them to spit the toothpaste out, but not to rinse, as this can lessen the benefit from the fluoride
- Exercise regularly and as vigorously as possible
Polyethylene glycol (Miralax) is preferred over lactulose for the treatment of constipation because it is more effective and has fewer adverse effects. Linaclotide (Linzess) and lubiprostone (Amitiza) are more effective than placebo for chronic constipation.

**Suppositories**

This product is used to relieve occasional constipation. Glycerin belongs to a class of drugs known as hyperosmotic laxatives. It works by drawing water into the intestines. This effect usually results in a bowel movement within 15 to 60 minutes.

For elderly the normal frequency of bowel movements varies from once daily to 1 to 2 times weekly. Constipation is best treated by drinking plenty of fluids, eating foods high in fiber, and exercising regularly. If the suppository is too soft to insert, chill in the refrigerator for 30 minutes or run cold water over it before removing the foil wrapper.

Wash hands before and after using this product. If the medication is wrapped in foil, remove the foil wrapper. If desired, the suppository may be moistened with lukewarm water. Do not use petroleum jelly or mineral oil. Doing so may cause the product to be less effective.

Make the patient lie on the left side with the right knee slightly bent. Using the finger, gently insert the suppository well up into the rectum, pointed end first. After insertion, stay in position for 15 to 20 minutes if possible until patient feel a strong urge to have a bowel movement. It does not need to melt completely to produce an effect. Do not use this more than once daily unless otherwise directed by your doctor.

If it product is used too frequently, it may cause loss of normal bowel function and an inability to have a bowel movement without using the product (laxative dependence). If you notice symptoms of overuse, such as diarrhea, abdominal pain, decreased weight or weakness, contact your doctor promptly. Consult the doctor promptly if the patient do not have a bowel movement after using this product or if there may be a serious medical problem.

**9.6 Bed bath, back care and massage**

Bed bath is given for keeping the client/patient clean while massaging back, paying special attention to pressure points. Especially back massage provides comfort and relaxes the client thereby it facilitates the physical stimulation to the skin and the emotional relaxation.

**Purpose:**
- To improve circulation to the back
- To refresh the mode and feeling
- To relieve from fatigue, pain and stress
- To induce sleep

**Equipment required:**
- Basin with warm water (2)
- Bucket for waste water (1)
- Gauze pieces (2)
- Soap with soap dish (1)
- Face towel (1)
- Sponge cloth (2): 1 for with soap 1 for rinse
- Big Towel (2): 1 for covering a mackintosh 1 for covering the body
- Mackintosh (1)
- Oil/Lotion/Powder (1): according to skin condition and favor
Tray (1)
Trolley (1)
Screen (1)
Chart paper and pen to record the findings/observation

Procedure:
- Perform hand hygiene
- Inform the client/patient about the procedure to be performed as a consent
- Assemble all equipment required
- Check the patient condition before proceeding
- Put all required equipment to the bed-side and set-up
- Close all windows and doors and/or put the screen for privacy
- Position the patient appropriately
- Bring the client close to you to be more comfortable during the procedure
- Turn the client to her/his side and put the mackintosh covered with a big towel under the body
- Expose the client’s back fully and check for any abnormality (redness, or sores developing)
- Do not massage if any abnormality is found. Report to the doctor immediately
- Lather soap by sponge towel. Wipe with soap and rinse with plain warm water
- Put some lotion/oil on your palm and apply it and gently massage for 3-5 minutes from sacral region to the neck and from upper shoulder to the lower part of the buttocks
- Replace equipment in proper place
- Perform hand hygiene
- Record it on a chart. Put the date, time, your signature and condition of the skin

Performing Bed Bath

Definition: A bath given to client who is in the bed (unable to bath itself)

Purpose:
- To prevent bacteria spreading on skin
- To clean the client’s body
- To stimulate the circulation
- To improve general muscular tone and joint
- To make client comfort and help to induce sleep
- To observe skin condition and objective symptoms

Equipments required:
- Basin (2): for without soap -(1); for with soap (1)
- Bucket (2): for clean hot water (1); for waste (1)
- Jug(1)
- Soap with soap dish (1)
- Sponge cloth (2); :for wash with soap (1); for rinse (1)
- Face towel (1)
- Bath towel (2): (1) for covering over mackintosh (1); (2) for covering over client’s body (1)
- Gauze piece (2-3)
- Mackintosh (1)
- Trolley (1)
- Thermometer (1)
- Old newspaper
- Paper bag (2); :for clean gauze (1); for waste (1)
**Procedure: Complete Bed Bath**

<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
</table>
| 1. Confirm Dr.’s order. Check client identification and condition | • The bath order may have changed.  
• In some instances a bed bath may be harmful for a client, who is in pain, hemorrhaging, or weak and need to defer the bath. |
| 2. Explain the purpose and procedure to the client. If he or she is alert or oriented, question the client about personal hygiene preferences and ability to assist with the bath | • Providing information fosters cooperation.  
• Encourage the client to assist with care and to promote independence. |
| 3. Gather all required equipment.                | • Organization facilitates accurate skill performance                        |
| 4. Wash your hands and put on gloves.           | • To prevent the spread of organisms. Gloves are optional but you must wear them if you are giving perineal and anal care. |
| 5. Bring all equipments to bed-side.            | • Organization facilitates accurate skill performance                        |
| 6. Close the curtain or the door.               | • To ensure that the room is warm.  
• To maintain the client’s privacy. |
| 7. Put the screen or curtain.                   | • To protect the client’s privacy.                                           |
| 8. Prepare hot water (60°C).                    | • Water will cool during the procedure.                                     |
| 9. Remove the client’s cloth. Cover the client’s body with a top sheet or blanket. If an IV is present on the client’s upper extremity, thread the IV tubing and bag through the sleeve of the soiled cloth. Re-hang the IV solution. Check the IV flow rate. | • Removing the cloth permits easier access when washing the client’s upper body.  
• Be sure that IV delivery is uninterrupted and that you maintain the sterility of the setup. |
| 10. Fill two basins about two-thirds full with warm water (43-46°C or 110-115 F). | • Water at proper temperature relaxes him / her and provides warmth. Water will cool during the procedure. |
| 11. Assist the client to move toward the side of the bed where you will be working. Usually you will do most work with your dominant hand. | • Keep the client near you to limit reaching across the bed. |
12. Face, Neck, Ears:

1) Put mackintosh and big towel under the client’s body from the head to shoulders. Place face towel under the chin which is also covered the top sheet.

2) Make a mitt with the sponge towel and moisten with plain water.

3) Wash the client’s eyes. Cleanse from inner to outer corner. Use a different section of them to wash each eye.

4) Wash the client’s face, neck, and ears. Use soap on these areas only if the client prefers. Rinse and dry carefully.

- To prevent the bottom sheet from making wet
- Soap irritates the eyes
- Washing from inner to outer corner prevents sweeping debris into the client’s eyes. Using a separate portion of the mitt for each eye prevents the spread of infection
- Soap is particularly drying to the face

13. Upper extremities:

1. Move the mackintosh and big towel oA to under the client’s far arm.

2. Uncover the far arm.

3. Fold the sponge cloth and moisten.

4. Wash the far arm with soap and rinse. Use long strokes: wrist to elbow → elbow to shoulder → axilla → hand

5. Dry by face towel

6. Move the mackintosh and big towel oA to under the near arm and uncover it

7. Wash, rise, and dry the near arm as same as procedure 4).

- To prevent sheet from making wet
- Washing the far side first prevents dripping bath water onto a clean area.
- Long strokes improve circulation by facilitating venous return

14. Chest and abdomen:

1. Move the mackintosh and bath towel oto under the upper trunk

2. Put another bath towel oto over the chest

3. Fold the sponge towel and moisten, wash breasts with soap and rinse. Dry by the big towel covering

4. Move the bath towel covering the chest to abdomen

5. Fold the sponge cloth and moisten, wash abdomen with soap, rinse and dry

6. Cover the trunk with top sheet and remove the bath towel from the abdomen.

- Mackintosh and bath towel oA prevent sheet from wetting
- Bath towel oB provides warmth and privacy
15. Exchange the warm water.  
● Cool bath water is uncomfortable. The water is probably unclean. You may change water earlier if necessary to maintain the proper temperature.

16. Lower extremities:  
1. Move the mackintosh and bath towel to under the far leg. Put pillow or cushion under the bending knee. Cover the near leg with bath towel ○B.  
2. Fold the sponge cloth and moisten.  
3. Wash with soap, rinse and dry.  
4. Direction to wash: from foot joint to knee→from knee to hip joint:  
5. Repeat the same procedure as16. 1)-3) on the nearside.  
6. Cover the lower extremities with top sheet. Remove the cushion, mackintosh and big towel A.  
● Pillow or cushion can support the lower leg and makes the client comfort.

17. Turn the client on left lateral position with back towards you.  
● To provide clear visualization and easier contact to back and buttocks care.

18. Back and buttocks:  
1) Move the mackintosh and big towel under the trunk.  
2) Cover the back with big towel  
3) Fold the towel and moisten. Uncover the back.  
4) Wash with soap and rinse. Dry with big towel ○  
5) Back rub if needed  
6) Remove the mackintosh and big towel ○  
● Skin breakdown usually occurs over bony prominences. Carefully observe the sacral area and back for any indications.

19. Return the client to the supine Position  
● To make sustainable position for perineal care.

20. Perineal care:  
1) Move the mackintosh and big towel under the trunk.  
2) Cover the back with big towel  
3) Fold the towel and moisten. Uncover the back.  
4) Wash with soap and rinse. Dry with big towel ○  
5) Back rub if needed  
6) Remove the mackintosh and big towel ○  
● Clean the perineal area to prevent skin irritation and breakdown and to decrease the potential odor.

21. Assist the client to wear clean cloth  
● To provide for warmth and comfort.

22. After bed bath:  
1) Make the bed tidy and keep the client in comfortable position.  
2) Check the IV flow and maintain it with the speed prescribed if the client is given IV.  
● These measures provide for comfort and safety  
● To confirm IV system is going properly and safely.

23. Document on the chart with your signature and report any findings to senior staff.  
● Documentation provides coordination of care  
● Giving signature maintains professional accountability.

Performing Back Care  
Definition:  
Back care means cleaning and massaging back, paying special attention to pressure points. Especially back massage provides comfort and relaxes the client thereby it facilitates the physical stimulation to the skin and the emotional relaxation.
Purpose:
- To improve circulation to the back
- To refresh the mode and feeling
- To relieve from fatigue, pain and stress
- To induce sleep

Equipments required:
- Basin with warm water (2)
- Bucket for waste water (1)
- Gauze pieces (2)
- Soap with soap dish (1)
- Face towel (1)
- Sponge cloth (2): 1 for with soap and 1 for rinse
- Big Towel (2): 1 for covering a mackintosh and 1 for covering the body
- Mackintosh (1)
- Oil / Lotion / Powder (1): according to skin condition and favor
- Tray (1), Trolley (1), Screen (1)

Procedure:

<table>
<thead>
<tr>
<th>What to do:</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perform hand hygiene</td>
<td>● To prevent spread of infection</td>
</tr>
<tr>
<td>2. Assemble all equipments required.</td>
<td>● Organization and facilitates accurate performance</td>
</tr>
<tr>
<td>3. Check the client's identification and condition.</td>
<td>● To assess sufficient condition on the client</td>
</tr>
<tr>
<td>4. Explain to the client about the purpose and the procedure.</td>
<td>● Providing information fosters cooperation</td>
</tr>
<tr>
<td>5. Put all required equipment to the bed-side and set up.</td>
<td>● Appropriate setting can make the time of the procedure minimum and effective.</td>
</tr>
<tr>
<td>6. Close all windows and doors, and put the screen or/and utilize the curtain if there is</td>
<td>● To ensure that the room is warm. ● To maintain the privacy.</td>
</tr>
<tr>
<td>7. Placing the appropriate position: 1) Move the client near towards you. 2) Turn the client to her/ his side and put the mackintosh covered by big towel under the client’s body.</td>
<td>● To make him/her more comfortable and provide the care easily. ● Mackintosh can avoid the sheet from wetting.</td>
</tr>
<tr>
<td>8. Expose the client’s back fully and observe it whether if there are any abnormalities.</td>
<td>● To find any abnormalities soon is important to that you prevent more complication and/or provide proper medication and/or as soon as possible. ● If you find out some redness, heat or sores, you cannot give any massage to that place. ● If the client has already some red sore or broken-down area, you need to report to the senior staff and/or doctor.</td>
</tr>
</tbody>
</table>
9. Lather soap by sponge towel. Wipe with soap and rinse with plain warm water. • To make clean the back before we give massage with oil/ lotion/ powder.

10. Put some lotion or oil into your palm. Apply the oil or the lotion and massage at least 3-5 minutes by placing the palms:
   1) From sacral region to neck
   2) From upper shoulder to the lowest parts of buttocks
• Don’t apply oil or lotion directly to the back skin. Too much apply may bring irritation and discomfort

11. Help for the client to put on the clothes and return the client to comfortable position. • To provide for warmth and comfort

12. Replace all equipments in proper place. • To prepare for the next procedure

13. Perform hand hygiene. • To prevent the spread of infection

14. Document on the chart with your signature, including date, time and the skin condition. Report any findings to senior staff. • Documentation provides coordination of care • Giving signature maintains professional accountability

### Massage Techniques to offer Relief:

Massage can provide relief to the patient as well as improve blood circulation in the area, which can be good for overall muscle movement and function. Depending on how much the patient is able to move and what is comfortable, it can either be done on the patient’s bed or on the floor on a mat.

A professional massage therapist can assist you properly in using different massage techniques that will benefit the patient. Our team of caregivers and therapists are equipped with the right training and experience and can help provide massage therapy for your loved one. Here are some ways that massage can work for the body.

The therapist will use a mix of various medicated and natural oils to massage the affected area. The type and intensity of the massage will depend on the patient’s overall health and the level of paralysis. For instance, if only one side of the body is affected, the massage will be of a particular kind. On the other hand, if the patient is suffering from paralysis on both sides of the body, the massage will be different.

### 9.7 Catheter care

Some patients are not able to move, sit and stand; hence, they are not able to go to washroom for urinating. A urinary catheter is a long, hollow, rubber drainage tube that is inserted into the body. It enters where one urinates and goes into the bladder.

A small balloon is inflated at the tip of the tube once it is in the bladder. The balloon helps to keep the catheter in place. The other end of the tube is connected to a collection bag. The purpose of the catheter is to drain urine from the bladder. Doctor will determine how long the urinary catheter will remain in place. To prevent any kind of infection - keep the drainage bag below the level of the bladder and off the floor at all times. Keep the catheter secured to the thigh to prevent it from moving. Ensure that the patient doesn’t lie on the catheter or block the flow of urine in the tubing. Shower daily to keep the catheter clean.

Catheter is important when the doctor wants to know the intake if fluid and the liquid output by the patient. Many times the patient is not able to empty the bladder when they urinate and there is a possibility of getting infection in the Urinary tract. It is also important to assess whether the kidneys are functioning well and it is also important sometimes when the patient is unable control and the urine often leaks from the bladder. Even when the patient has severe illness or disability and is not able to move or change clothes. An indwelling urinary catheter helps drain urine from the body when the patient cannot do it on his/her own because the catheter goes from the outside world into the body, it’s important to keep it clean. Germs that get inside the body can cause infection.
Male Patient

Basic Catheter Care - Keep the catheter clean by gently washing it with warm water and a mild soap twice a day. Male patients may experience irritation at the tip of the penis where the catheter is coming out. This can be alleviated by keeping the catheter clean and lubricated with KY jelly, Vaseline, or Bacitracin.

Female Patient

Care: The major cause of irritation is at the end of the urethra - the opening of the urinary channel above the vagina. This area should be washed daily with a mild douche and water at least daily. In most cases, you will have less irritation of the urethra if the catheter is secured to the leg with a gentle curve. Tape is the best and least expensive way of securing the catheter. Movement or tugging on the catheter will then pull on the tape, not on the urethra and bladder.

Cleaning the drainage bags: Rinse bags with warm water and soap every day or two, depending on how dirty and how much odor is present. One teaspoon of vinegar may be used in the rinse water to reduce the odor.

Emptying bags: Hold any bag over the toilet or suitable container and open the spigot at the bottom of the bag. Let urine flow until empty and then close the spigot.

Problems: The more urine that flows, the less the chance for a blockage. You should be drinking 4-8 ounces of water every hour while awake.

Bleeding: Bleeding can be seen on occasion with any catheter. Small amounts of blood or clots are usually of little concern. Bleeding sufficient enough to make it impossible to see through the urine should be brought to your physician’s attention.

Blockage: Urine should drain constantly into the bags. If you see no flow for more than an hour and feel the need to urinate, a blockage of the tube may be present. Debris or blood clots are the most common causes and will need to be dealt with in the office, if open, or the emergency room. The catheter will either be irrigated clear or the catheter changed.

9.8 Changing diaper

- Disposable medical gloves
- A clean adult diaper
- A plastic grocery bag
- Pre-moistened wipes (such as baby wipes or wet wipes) or skin cleanser and disposable cloths
- Barrier cream

An adult help may be useful with this process. A hospital bed would make the patient more comfortable at the same time will be easier to care

Changing a Bedridden older Adult Patient’s Diaper

- Wash and dry your hands thoroughly and put on a pair of disposable medical gloves.
- If the patient’s bed is adjustable, raise the entire bed to a comfortable height (usually slightly lower than your hips). Lower the head of the bed as far down to horizontal as they can tolerate.
- With the patient resting on their back, unfasten the straps, Velcro, or adhesive tape of the adult diaper and then tuck the side farthest from you under the person’s hip.
With one hand on the patient's hip and the other on their shoulder, roll them away from you onto their side. You might find this easier with the help of another able-bodied person, who can then hold the patient on their side while you work.

If you tucked the diaper far enough under their hip, you should now be able to pull the adult diaper toward you and out from under them. Roll the used diaper inward as you remove it to contain any mess.

Place the soiled adult diaper into a plastic grocery bag for disposal (but do not seal the bag).

Using pre-moistened wipes or skin cleanser and disposable cloths, clean the person's diaper area, front and back, as thoroughly as possible. Avoid pressing or rubbing the skin too hard. You might need to roll the patient onto their back or on their side to thoroughly clean areas you cannot reach. Place used wipes or cloths in the plastic grocery bag.

With the person still on their side, check the skin for pressure sores, which are also known as bedsores or pressure ulcers. It is important to check the skin daily for any early signs that a pressure sore has begun.

Apply barrier cream to the patient's perineum to moisturize and protect the skin.

After allowing the patient's skin to thoroughly dry, roll up one side of the new adult diaper and tuck it under their side. Flatten and position the rest of the diaper on the bed.

Roll the person back toward you onto the diaper and then pull out the rolled-up side of the diaper. Remove any wrinkles and fasten the adult diaper as directed by the manufacturer. Again, this process is easier with two people.

Remove your disposable medical gloves and place them in the plastic grocery bag before tying it closed.

Wash and dry your hands thoroughly.

If the patient's bed is adjustable, return it to the desired height and raise the head of the bed to the desired level. Cover the person with a clean sheet or blanket(s) if desired.
QUESTIONS - Section-9

Qs. 1 What are the three types of Bed-Making?
Qs. 2 Write 5 reasons to why a patient requires Perineal care?
Qs. 3 How will you change the diaper in older adults?
Qs. 4 Give rationale against any three of the following Care Actions:
   i) Explain the purpose and procedure to the patient
   ii) Perform Hand Hygiene
   iii) Prepare and bring all equipment to the bed-side
   iv) Move the and bed-side locker
   v) Clean Bed-side locker with wet and dry cloth
Qs. 5 State True or False:
   i) Patients who are able to do self-care need frequent perineal care
   ii) One of the principals of perineal care is to maintain privacy
   iii) Dentures should be removed while assisting the patient with oral care.
   iv) Enema can be helpful to the patients with constipation
   v) Bed bath is given to a patient to improve the circulation at the back.
Legal aspect

Legal issues for the ageing are many and they reach into all areas of life. Estate planning is the one legal issue individuals think about most often in relation to the elderly. But even this one aspect of life involves so much more than determining which relative gets what assets.

Living wills, powers of attorney, and instructions pertaining to life sustaining treatments are all complex legal issues that the majority of the ageing population will have to deal with.

Provisions have been made in the Constitution of India to preserve the rights of those aged above 60. Article 41 of the Constitution secures the right of senior citizens to employment, education and public assistance. It also ensures that the state must uphold these rights in cases of disability, old age or sickness. The Aged Care Act 1997 is the main law that covers government-funded aged care. It sets out rules for things like funding, regulation, approval of providers, quality of care and the rights of people receiving care. Laws on diversity and discrimination also apply to aged care.

10.1 Consent

Informed Consent basically means that the care provider must tell a patient all of the potential benefits, risks, and alternatives involved in any procedure whether it is bathing, cleaning or giving medicine orally, injection or through IV. Obtaining informed consent in medical care is the process that includes:

- Describing the proposed intervention
- Emphasizing the patient’s role in decision-making
- Discussing alternatives to the proposed intervention
- Discussing the risks of the proposed intervention
- Eliciting the patient's

10.2 Care of dead

Washing and dressing the body is an act of intimacy and sign of respect. Regardless of whether the person died at home or in hospital, hospice or nursing home, washing and positioning the body is best done where death occurs before stiffening of the body (rigor mortis) sets in.

The role of the nurse during the active dying phase is to support the patient and family by educating them on what they might expect to happen during this time, addressing their questions and concerns honestly and providing emotional support and guidance.

When someone dies

There are legal requirements for what you should do when someone dies. Given hereunder is what all should be done when someone dies at home but different organizations might have different policies and procedures. Local and national guidelines should always be followed.

Following someone’s wishes

When someone is expected to die, they should be given the opportunity to express their wishes for what they want to happen in their last few days and hours, and what happens to them after they die. Discussions about a person’s wishes can be clearly documented in their care plan. This could include their wishes on:

- who they would like to be contacted when they die
- any religious or spiritual practices that should be carried out when they die
- whether they wish to donate organs or tissues, or their whole body (for example, to a medical school)
- their plans for their funeral, and whether they are using a funeral director
- whether they would like to be buried or cremated.

If you are unaware of their wishes, ask family and friends or other professionals involved in their care.
Verifying a death
Death can only be verified by a doctor or a registered nurse who has been specially trained in verifying death. If you’re not qualified to verify a death, you should explain to the family and friends that the person is understood to have died but that this will be verified by a doctor or nurse as soon as possible. The time that the death is verified is the official time of death. Call the deceased’s GP, out-of-hours service or district nurse to notify them of the death and organize verification. If there are no family members or friends present at the time, you should make sure that they are informed as soon as possible.
When a doctor or specially trained nurse verifies a death, they’re responsible for identifying the person. They must document the time, that there are no signs of life and whether the person has any infection risks or implantable medical devices (as these can pose a risk to funeral home staff or pathology technicians).

Certifying a death
A doctor must certify the death. This involves completing a medical certificate of cause of death and stating what the cause of death was. This should happen as soon as possible. If there are any unexpected or suspicious circumstances, or if the cause of death is not known, the doctor may not be able to issue a death certificate without talking to the coroner (England, Wales and Northern Ireland) or procurator fiscal (Scotland). The doctor completing the certificate may wish to talk to you as part of their standard checks.

How can one care for the deceased?
Personal care of the deceased should be carried out by a registered nurse or someone else, such as a health care assistant, who has completed the relevant training. If it is within your role, make sure you follow your own organization’s policy.
Be aware of any infections the person had and follow standard infection control measures such as wearing gloves and aprons. Standard infection prevention control practices should be followed at all times. These include:
1. Hand hygiene.
2. Use of personal protective equipment (e.g., water resistant apron, gloves, masks, eyewear).
3. Safe handling of sharps.
4. Disinfect bag housing dead body; instruments and devices used on the patient.
5. Disinfect linen. Clean and disinfect environmental surfaces.

Personal care should be carried within two to four hours of the person dying to preserve their appearance, condition and dignity. Personal care usually involves the following:

- The health worker attending to the dead body should perform hand hygiene; ensure proper use of PPE (water resistant apron, goggles, N95 mask, gloves).
- All tubes, drains and catheters on the dead body should be removed.
- Lay them flat on their back and straighten their arms and legs if possible.
- Leave one pillow under the head as this helps to keep the mouth closed.
- Sometimes the mouth won’t close. Don’t force it or use bandages as this can leave marks. Explain to the family that a funeral director can help.
- Close the eyes by lightly pressing down on the eyelids with your fingertips for 30 seconds. If it doesn’t work, don’t try again, but explain to the family that a funeral director can help with this.
- Clean the mouth and clean and replace any dentures.
- Tidy the hair and arrange into their preferred style.
- Shaving someone who has recently died can cause bruising. A funeral director can do this later if the family requests it.
- Don’t remove any medical devices or syringe drivers until the death has been verified and you know that it is not being referred to the coroner or procurator fiscal.
- Intravenous (IV) cannula, drains and catheters should be capped off and left in place. This helps to prevent any leakage of fluids and helps with infection control.
o Pads can be used to soak up any leakage of fluid from the urethra, vagina or rectum.
o Cover any wounds with a clean dressing.
o Cover stomas with a clean bag.
o Clean and dress the deceased appropriately.
o Remove any jewelry or watches apart from a wedding ring if they have one and document this. Be aware of any religious ornaments that need to remain with the deceased.
o Sensitive ly ask the family whether they would like any soiled clothes to be returned or disposed of.

It's recommended to have two people provide personal care for the deceased. You might need to wait until you can get assistance from a colleague. Some family members or others close to the deceased might want to assist with personal care. Continue to treat the deceased with respect and dignity. Respect any religious or cultural practices that are important to them or their family. Record all aspects of personal care in the deceased's care plan.

How can I support the people important to the deceased?

Every death is different and people react in very different ways. If there are family members or friends present at the death, be respectful of what they need. They might want you to take the lead or they might prefer that you're in the background. If there are no family members or friends present, make sure that they're informed as soon as possible.

Let family and friends know about bereavement services they can access. It might be helpful to share our information on grief. We also have lots of practical information on practical, legal and financial matters when someone dies. Be aware if anyone in the household will need additional support, for example young people under 18, adults with learning disabilities, dementia, and other vulnerable adults. If you're concerned tell the GP or district nurse.

Taking care of yourself
Caring for someone who has died can be very challenging emotionally. It's common to build up a relationship with the person you're caring for and you may feel a range of emotions when they die, including sadness, guilt, anger, relief and shock. This is normal. It can also bring up memories of people you have lost in your personal life. If your feelings are affecting your work or personal life, it's a good idea to get some support. Talking to your manager or other colleagues about your experiences can be helpful. If you feel you need extra support, you could consider seeing a counselor or psychologist.

10.3 Medico legal case

A medico-legal case is one where besides the medical treatment; investigations by law enforcing agencies are essential to fix the responsibility regarding the present state / condition of the patient. The case therefore has both medical and legal implications.

Medico-legal is something that involves both medical and legal aspects, mainly:
o Medical jurisprudence, a branch of medicine
o Medical law, a branch of law

The legal issues include confidentiality, autonomy, consent to medical treatment by children, disclosure of information in the consent process and clinical negligence. The legal principles are in plain type. It is greatly respected that information between a doctor and patient is treated as strictly confidential.

If it is an MLC, it should be informed to the nearest police station. A "medico-legal register" should be maintained in the emergency department of every hospital and details of all MLCs should be entered in this register. This should include the time, date, and place of examination and the name of the examining doctor.
QUESTIONS - Section-10

Qs. 1 Does the Constitution of India have a provision for the aged citizens of the country. What Law cover the government-funded aged care?

Qs. 2 Define Informed Consent?

Qs. 3 What should be done immediately done to the body of the patient who is dead?

Qs. 4 True or False:
   i) A registered nurse can verify the death of a person
   ii) A registered nurse can certify the death of a person
   iii) MLC means - Medical and Logical Criteria
   iv) A hospital should maintain a Medico Legal Register
   v) In case of MLC, Police should be informed

Qs. 5 Choose the right answer from the two options given with each statement:
   i) The document determining which relative get what assets of the deceased is called (a. Living Will or b. Consent)
   ii) The Aged Care Act in India came into force in the year: (a. 1997 or b. 2014)
   iii) Discussing the risks of the proposed intervention to the patient is a part of the process of:
   iv) While handling the dead body of an infected person one should follow: (a. Use of PPE or b. injection protocols)
   v) In case of MLC the following should be included in the Medico-Legal Register: (a. time-date-place of examination or b. name of the deceased-name of the nurse-phone number of the hospital)
Detection and reporting of medical errors is a vital safety practice that should be adopted in geriatrics. Geriatricians should detect and report preexisting and new-onset geriatric syndromes (such as pressure ulcers, delirium, falls, and underfeeding) that will enable them to instigate an immediate treatment plan.

11.1 Promote safety

In order to help keep senior citizens safe at home and on the go, learn these senior safety tips and facts:

<table>
<thead>
<tr>
<th>Focus on Balance</th>
<th>Store Medications Safely</th>
<th>Have easy access to emergency numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicate Safely</td>
<td>Get Annual Eye Examinations</td>
<td>Handle Driving with respect and honesty</td>
</tr>
<tr>
<td>Wear an Alarm Device</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11.1 Transportation

There are three general types of transportation for the elderly, including door-to-door, fixed route, and ridesharing.

Door-to-door, or demand response, is a system where advance reservations are made to take an elderly individual from one place to another.

10 Ways to Transport older Patient to the Doctor or Other Appointments

<table>
<thead>
<tr>
<th>Drive them yourself</th>
<th>Use a medical car</th>
<th>Use a wheelchair van</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book a Taxi</td>
<td>Use an ambulance</td>
<td>Home health aide drives their car</td>
</tr>
<tr>
<td>Public Transportation (Including Access Link)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11.3 Moving Patient in and out of Bed, Wheel Chair, Stretcher

PATIENTS WHO ARE debilitated or overweight require more than minimal assistance to transfer between a bed and wheelchair.

Follow these steps.

1. Place the transfer belt around the patient’s waist over her clothing. (Never apply it on bare skin or over a woman’s breasts.) To apply the transfer belt featured here, lift the buckle and feed the belt through the slot. Tighten the belt and close the buckle to secure the belt. It should fit snugly, but with enough slack for you to fit both hands underneath comfortably.

2. Position yourself directly in front of the patient, assuming a broad-based stance with your feet outside of her feet. Flex your knees and hips but keep your back straight. Grip the belt by sliding your hands upward under it, with your palms away from the patient. Instruct the patient to put her arm on your shoulder, as shown, but never around your neck or shoulder.

3. Help her stand. Support her in a standing position

4. Instruct her to reach over the wheelchair and grasp the handrail as you help her pivot toward the seat.

5. Bend your knees and help her sit on the wheelchair seat. Make sure she’s properly aligned and comfortable. You can leave the transfer belt in place for the transfer back to bed. Document the procedure and your patient’s response.
6. To transfer the patient back to bed, make sure that the wheels on bed and wheelchair are locked and that the transfer belt is securely fastened as described previously. Assume a broad base of support. Instruct her to grasp the wheelchair’s arms for leverage.

7. Grasp the belt with both hands, palms facing you. On the count of 3, flex your hips and knees and help the patient stand.

8. Have the patient rest her hands on your shoulders for balance. As shown, pivot with her toward the bed, shifting your weight to your back leg and keeping your knees flexed.

9. Flexing your knees and shifting your weight toward the leg nearer the bed, guide her to a sitting position on the side of the bed. Remove the belt and help her into a comfortable position in bed. Assess her response to the transfer and document the procedure.

Transfer of patients from a bed to stretcher
Patients are transferred almost every day but if the transfer is done incorrectly, it can lead to back strain or even other threatening injuries. The following techniques for several types of patient transfers, starting with a bed-to-stretcher transfer are given hereunder step-wise:

If a patient can’t move independently between a bed and stretcher, gather at least three nurses to perform the transfer. (Four or five nurses may be needed to safely transfer a patient who’s extremely debilitated or overweight; obese patients require a hydraulic lifter.) Obtain a transfer board or transfer sheet to reduce the risk of injury to the patient or a nurse.

Then follow these steps.
- Lower the head of the bed so the patient is flat (unless contraindicated or not tolerated) and cover her with a sheet or blanket for privacy and warmth. Explain the procedure and assess her level of consciousness, ability to understand and follow directions, and ability to assist with the transfer. Close her door or draw the curtains for privacy and perform hand hygiene. (Use personal protective equipment if indicated.)
- Raise the level of the bed so it’s slightly higher than the stretcher. Make sure the brakes are locked on both the bed and stretcher.
- Remove the pillow from the bed and place it on the stretcher. Ask the patient to roll away from the stretcher. (Help her turn, if necessary.) Then place the sliding board over the gap between the bed and stretcher.
- Help her return to a supine position on the sliding board and ask her to cross her arms on her chest.
- Each nurse should assume a broad base of support with one foot in front of the other and knees and hips flexed, keeping her body aligned and her back straight. On the count of three, the two nurses on the stretcher side of the bed should gently pull the sliding board toward themselves, as shown.
- Roll the patient to her side and remove the sliding board.
- Center her on the stretcher with her body in alignment. Make sure she’s comfortable and raise the rails on the stretcher.
Keep patients safe and protect yourself from injury by brushing up on transfer techniques as shown in the figure.

**Safe transfers: Do's and don'ts**

- Don’t try to transfer a very heavy patient without a hydraulic lifter.
- Assess the patient for hypotension and fall risk before attempting a transfer. Make sure she can bear weight, has adequate upper body strength and coordination, and can cooperate and follow directions.
- Don’t let the patient put her arms around your neck or shoulders during the transfer; this could cause neck or back injuries.
- For maximum stability, keep the patient close to you during the transfer.
- Make sure the patient understands what’s going to happen and when. Count “1, 2, 3” out loud and move on the count of 3.
- Don’t twist at the waist at any point during the transfer. Keep your body in proper alignment with your back straight and hips and knees flexed.
- Document the transfer, including the patient’s ability to bear weight and pivot, number of staff needed for transfer, and the patient’s response to transfer and to being in a wheelchair.
QUESTIONS

Section-11

Qs. 1 What are the vital Safety practices to be adopted in Geriatrics?
Qs. 2 List down 5 ways to transport an older patient to the Doctor?
Qs. 3 Describe the process of transfer of a patient from bed to the stretcher?
Qs. 4 State True or False:
   i) Transfer belt important to be used while transferring a patient to a wheel-chair
   ii) Ambulance is also a method of transporting an older patient to the doctor
   iii) Geriatricians should detect ulcers and under-feeding in older patients
   iv) Patient transfer to stretcher should never be by more than one Nurse
   v) Ask the patients to put their arms around your neck or shoulder during transfer
Infection control addresses factors related to the spread of infections within the healthcare setting, whether among patients, from patients to staff, from staff to patients, or among staff. This includes preventive measures such as hand washing, cleaning, disinfecting, sterilizing, and vaccinating. Even if the patient is at home, infection control must be practiced.

12.1 Understand usage of protective equipment’s

PPE or Personal Protective Equipment must be worn by the one who is taking care of the patient. Bacteria and germs can spread from one client to another if they have an illness such as a cold. This is why it is important to know when to wear correct PPE and to wash your hands and follow correct policies and procedures as Infection Control can be prevented this way. Bacteria can be transferred to hands and clothing during bed-making. Therefore, it is recommended to put on a plastic apron in addition to washing the hands before and after bed-making. Hand Hygiene is the single most effective way to prevent the spread of infections. Certain "germs" (a general term for microbes like viruses and bacteria) can be spread casually by touching another person.

Infection prevention and control (IP&C) practices are important in maintaining a safe environment for everyone by reducing the risk of the potential spread of disease. Standard precautions are a set of infection control practices used to prevent transmission of diseases that can be acquired by contact with blood, body fluids, non-intact skin (including rashes), and mucous membranes.

12.2 Personal hygiene, universal precaution, infection control

Personal hygiene may be described as the principle of maintaining cleanliness and grooming of external body. Failure to keep up a standard of hygiene may have many implications. There is a risk of getting an infection or illness but there are many social and psychological aspects that can be affected. It is how you care for your body. This practice includes bathing, washing your hands, brushing your teeth, and more. Every day, you come into contact with millions of outside germs and viruses. They can linger on your body, and in some cases, they may make you sick.

Universal Precautions for Infection Control

- Hand hygiene (Hands to washed as shown in the Fig. below)
- Gloves to be worn when touching blood, body fluids, secretions, excretions, mucous membranes, non-intact skin
- Facial protection (eyes, nose, and mouth) Gown
- Prevention of needle stick and injuries
- Respiratory hygiene and cough etiquette
- Environmental cleaning, Linen
- Personal Protective Equipment (PPE) (as in the fig. below)
Infection Control and Prevention - Standard Precautions

<table>
<thead>
<tr>
<th>Head Hygiene</th>
<th>Personal Protective Equipment (PPE)</th>
<th>Cleaning and Disinfection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Disposal</td>
<td>Needle Stick and Sharp Injury Prevention</td>
<td>Safe Injection Practices</td>
</tr>
<tr>
<td>Respiratory Hygiene (Cough Etiquette)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.3 Precaution to be taken while usage of equipment and assistive devices

Assisted device is any item, piece of equipment, products, system whether acquired commercially, off the shelf, modified or customized that is used to increase, maintain or improve functional capabilities of individuals with disabilities. The term has been used interchangeably with terms such as assistive technology, adapted equipment and assistive devices.

Assistive device used to protect the involved joints from any stress. It is actually to protect the uninvolved joints from stress and this is one of the most stressful activities you can do, turn the key in a lock and open the door because there is a loss of stressors.

There are two things to consider for using assistive devices. One is external pressure and the other is internal pressures and these two things are how the assistive device or the motion is going to affect your body or your joints.

External Pressure

Forces placed on our joints through:
- Odd shaped objects
- Slippery surfaces
- Tightly fit objects - lids, caps
- Small handles/objects - lids, caps
- Small handles/objects – kitchen / work bench tools
- Cold objects

Internal Pressure
- Most joints tend to become distressed in a flexed or bent position
- Groping objects tightly can cause harmful internal tensions around your joints caused by your fingers muscles
- Poor placement of hand on object stresses ligament
- Poor placement of joints around an object
12.4 Bio medical waste management

Any waste, which is generated during the Diagnosis, Treatment or Immunization of Human Beings or Animals or in Research Activities pertaining thereto or in the Production or Testing of Biologicals is called Bio Medical Waste.

Out of the total waste generated in a hospital about 15-20% is Bio Medical Waste which is infective or hazardous, while the 80-85% waste is general waste and is non-infective as in the figure below:
The following diagram depicts the Categorisation of the entire Waste generated in a Hospital:

**HOSPITAL WASTE - CATEGORISATION**

If the Bio Medical Waste is not segregated and disposed of improperly, if it gets mixed with the general waste there are adverse public health effects. Some of them are listed below:

<table>
<thead>
<tr>
<th>AIDS</th>
<th>Hepatitis B &amp; C</th>
<th>Gastro-centric infections</th>
<th>Respiratory Infections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Infections</td>
<td>Intoxications</td>
<td>Blood Stream Infections</td>
<td>Effects of Radio-active Substances</td>
</tr>
</tbody>
</table>

Government of India has formulated Rules to regulate the Bio Medical Waste Management under the Ministry of Environment & Forest through the Central Pollution Control. The State Pollution Control Boards are the enforcement agency and the Health Departments are the implementers of Bio Medical Waste Management Rules in the state. The entire Bio Medical Waste has been categorized into four colour codes and proper segregation should be done the point of generation. Violation of the BMW Rules may lead to monetary fine and imprisonment or both.

The basic principles of Bio Medical Waste Management are Segregation - Treatment - Disposal. After segregation at source the BMW as per the colour coded norms provided by the Central Pollution Control Board has to be stored in a separate Room away from the patient care area from where the Vehicle from the Common Bio Medical Waste Treatment Facility (CBWTF) will pick it up daily and transport it to the incinerator site.

The disposal is done by incineration. Incinerators are installed outside the municipal limits after authorisation from the State Pollution Control Board. In rural areas where the Incinerator vehicle does not go another option of Deep Burial is available after approval of the State Pollution Board. Segregation is the key to proper BMW Management but other steps are important too. In case of any anomalies or flouting of Rules for Bio Medical Waste if found there is penalty of up to Rs. 1.0 Lakh and imprisonment of up to 5 years or both.
The following picture shows the various steps from Segregation to Disposal:

**Basic Principles of Bio Medical Waste Management**

<table>
<thead>
<tr>
<th>Segregation at Source</th>
<th>Bio Hazard</th>
<th>Cytotoxic Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right way to Segregate</td>
<td>The containers shall be labeled according to Schedule III (BMW Management &amp; Handling Rules 1998)</td>
<td></td>
</tr>
<tr>
<td>Wrong way to Segregate</td>
<td>Cytotoxic Hazard</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Segregation</th>
<th>Labelling</th>
<th>Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra Mural</td>
<td>CWTF Plant</td>
<td>Disposal Options of Bio Medical Waste</td>
</tr>
<tr>
<td>External</td>
<td>Deep Burial Pit</td>
<td></td>
</tr>
<tr>
<td>Transportation of waste safely to pick-up site and for final disposal</td>
<td>Sharp Pit</td>
<td></td>
</tr>
</tbody>
</table>

(99)
Following tables give a clear picture of segregation norms into four colour categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>Type of Waste</th>
<th>Type of Bag or Container to be used</th>
<th>Treatment and Disposal options</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Human Anatomical Waste:</td>
<td>Human tissues, organs, body parts and fetus below the viability period (as per the Medical Termination of Pregnancy Act 1971, amended from time to time)</td>
<td>Yellow coloured non-chlorinated plastic bags</td>
<td>Incineration or Plasma Pyrolysis or Deep Burial</td>
</tr>
<tr>
<td>(b) Animal Anatomical Waste :</td>
<td>Experimental animal carcasses, body parts, organs, tissues, including the waste generated from animals used in experiments or testing in veterinary hospitals or colleges or animal houses.</td>
<td>Yellow Coloured non-chlorinated plastic bags</td>
<td>Incineration or Plasma Pyrolysis or Deep Burial</td>
</tr>
<tr>
<td>(c) Soiled Waste:</td>
<td>Items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs and bags containing residual or discarded blood and blood components.</td>
<td>Separate collection system leading to effluent treatment system</td>
<td>After resource recovery, the chemical liquid waste shall be pre-treated before mixing with other wastewater. The combined discharge shall conform to the discharge norms given in Schedule- III.</td>
</tr>
<tr>
<td>(f) Chemical Liquid Waste :</td>
<td>Liquid waste generated due to use of chemicals in production of biological and used or discarded disinfectants, Silver X-ray film developing liquid, discarded Formalin, infected secretions, aspirated body fluids, liquid from laboratories and floor washings, cleaning, house-keeping and disinfecting activities etc.</td>
<td>Non-chlorinated chemical disinfection followed by incineration or Plasma Pyrolysis or for energy recovery. In absence of above facilities, shredding or mutilation or combination of sterilization and shredding. Treated waste to be sent for energy recovery or incineration or Plasma Pyrolysis.</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Type of Waste</td>
<td>Type of Bag or Container to be used</td>
<td>Treatment and Disposal options</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Red               | Contaminated Waste (Recyclable)  
(a) Wastes generated from disposable items such as tubing, bottles, intravenous tubes and sets, catheters, urine bags, syringes (without needles and fixed needle syringes) and vacucontainers with their needles cut) and gloves. | Red coloured non-chlorinated plastic bags or containers | Autoclaving or micro-waving/ hydroclaving followed by shredding or mutilation or combination of sterilization and shredding. Treated waste to be sent to registered or authorized recyclers or for energy recovery or plastics to diesel or fuel oil or for road making, whichever is possible. Plastic waste should not be sent to landfill sites. |
<p>| White (Translucent) | Waste sharps including Metals: Needles, syringes with fixed needles, needles from needle tip cutter or burner, scalpels, blades, or any other contaminated sharp object that may cause puncture and cuts. This includes both used, discarded and contaminated metal sharps. | Puncture proof, Leak proof, tamper proof containers | Autoclaving or Dry Heat Sterilization followed by shredding or mutilation or encapsulation in metal container or cement concrete; combination of shredding cum autoclaving; and sent for final disposal to iron foundries (having consent to operate from the State Pollution Control Boards or Pollution Control Committees) or sanitary landfill or designated concrete waste sharp pit. |</p>
<table>
<thead>
<tr>
<th>Category</th>
<th>Type of Waste</th>
<th>Type of Bag or Container to be used</th>
<th>Treatment and Disposal options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>(a) Glassware: Broken or discarded and contaminated glass including medicine vials and ampoules except those contaminated with cytotoxic wastes. Cardboard boxes with blue coloured Marking</td>
<td>Disinfection (by soaking the washed glass waste after cleaning with detergent and Sodium Hypochlorite treatment) or through autoclaving or microwaving or hydro-claving and then sent for recycling.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) Metallic Body Implants</td>
<td>Cardboard boxes with blue coloured Marking</td>
<td></td>
</tr>
</tbody>
</table>

*Disposal by **DEEP BURIAL** is permitted only in Rural or Remote areas where there is no access to **Common Bio-Medical Waste Treatment Facility (CBWTF)**. This will be carried out with prior approval from the prescribed authority and as per the Standards specified in Schedule-III. The deep burial facility shall be located as per the provisions and guidelines issued by Central Pollution Control Board from time to time.*
QUESTIONS - Section-12
Qs. 1 Why Infection Control practice important?
Qs. 2 List 5 Universal Precautions for Infection Control
Qs. 3 Define Bio Medical Waste?
Qs. 4 Fill in the blanks:
   i) ______ and ______ are two examples of Bio Medical Waste
   ii) Surgical gloves and Urine Bags will be segregated in ______ coloured bin
   iii) ______ is the key to proper Bio Medical Waste Management
   iv) Glass waste is segregated in ______ coloured bin
   v) Inside the hospital the Bio Medical Waste should be transported in ______ trolley
Special procedures, Post ICU care

13.1 Administration of medication

- Administration of medication is a very important and can be a dangerous duty thus the nursing assistant should understand principles of pharmacology.
- Correct medication - restore the patient to health and if given incorrectly the patient’s condition may worsen.
- The nursing assistant must understand fundamentals of drug administration –

<table>
<thead>
<tr>
<th>The Routes</th>
<th>The Dosage Calculations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Techniques</td>
<td>Patients Education</td>
</tr>
</tbody>
</table>

- While preparing to administer the drug close attention should be paid to the dose, route and form of medication and ascertain whether the drug has to be applied locally i.e. directly to the skin, tissue or mucous membrane or the drug has to be given by routes that allow the drug to be absorbed or distributed into the blood stream.
- Rules of administration of drug:
  - Give only the drugs prescribed by the doctor
  - Wash the hands
  - Calculate the dose correctly
  - Do not leave the prepared drug unattended and also to never give a drug prepared by someone else.
- Identify the patient properly
- Observe that the patient is following the administration
- Report the error to the doctor immediately
- Document properly

The Seven ‘R’s of Medication administration are:

<table>
<thead>
<tr>
<th>Right Patient</th>
<th>Right Medication</th>
<th>Right Dosage</th>
<th>Right Route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Time</td>
<td>Right Reason</td>
<td>Right Documentation</td>
<td></td>
</tr>
</tbody>
</table>

13.2 Dosage in prescription

Optimizing drug therapy is an essential part of caring for an older person. The process of prescribing a medication is complex and includes: deciding that a drug is indicated, choosing the best drug, determining a dose and schedule appropriate for the patient’s physiologic status, monitoring for effectiveness and toxicity, educating the patient about expected side effects, and indications for seeking consultation.

Avoidable adverse drug events (ADEs) are the serious consequences of inappropriate drug prescribing. The possibility of an ADE should always be borne in mind when evaluating an older adult individual; any new symptom should be considered drug-related until proven otherwise.

Prescribing for older patients presents unique challenges. Premarketing drug trials often exclude geriatric patients and approved doses may not be appropriate for older adults [1]. Many medications need to be used with special caution because of age-related changes in pharmacokinetics (i.e. absorption, distribution, metabolism, and excretion) and pharmacodynamics (the physiologic effects of the drug).

Particular care must be taken in determining drug doses when prescribing for older adults. An increased volume of distribution may result from the proportional increase in body fat relative to skeletal muscle with ageing. Decreased drug clearance may result from the natural decline in renal function with age, even in the absence of renal disease. Larger drug storage reservoirs and decreased clearance prolong drug half-lives and lead to increased plasma drug concentrations in older people. As examples, the volume of distribution for diazepam is increased, and the clearance rate for lithium is reduced, in older adults. The same dose of either medication would lead to higher plasma concentrations in an older, compared with younger, patient. Also, from the pharmacodynamic perspective, increasing age may result in an increased sensitivity to the effects of certain drugs.
Hepatic function also declines with advancing age, and age-related changes in hepatic function may account for significant variability in drug metabolism among older adults. Especially when polypharmacy is a factor, decreasing hepatic function may lead to adverse drug reactions (ADRs). A stepwise approach to optimized prescribing of drug therapy for older adults will be reviewed here. Drug treatments for specific conditions in the older population are discussed separately.

### 13.3 IV therapy

From drips that provide an instant glow to an energy boost, IV Therapy can reduce the time-consuming recovery from dehydration, hangover, minor illness and exhaustion. Not only does this method accelerate the effectiveness of treatment, the digestive system metabolizes supplements and significantly reduces the amount of vitamins, nutrients, and medication that actually enters the bloodstream. IV drips ensure 100% absorption for maximum effect and minimal waste. Because vitamins and medications are delivered directly to the cells that need them, IV drips have the potential to impact and improve the function of a wide variety of body systems.

**Benefits:**

**Benefit #1: Improved Wellness**

**IV drip therapy improves overall wellness by providing 100% of the vitamins and nutrients your body needs to:**

<table>
<thead>
<tr>
<th>Improve Immune health</th>
<th>Boost Energy Levels</th>
<th>Improve Symptoms of Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Anxiety</td>
<td>Improve Allergies</td>
<td>Improve Mental Clarity &amp; Cognitive Function</td>
</tr>
<tr>
<td>Improve allergies</td>
<td>Combat Fatigue</td>
<td>Reduce Symptoms of Migraines</td>
</tr>
<tr>
<td>Accelerate wound healing</td>
<td>Improve Symptoms of Asthma</td>
<td>Maintain the strength of muscle &amp; tissues</td>
</tr>
</tbody>
</table>

IV drip therapy is a convenient, efficient way to give your body the support it needs to keep you feeling your best year-round.

**Benefit #1: Accentuated Beauty**

**IV drip therapy can help you look your best by working to:**

<table>
<thead>
<tr>
<th>Slow the ageing process</th>
<th>Brighten Skin</th>
<th>Prevent damaging effects of free radicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Blemishes</td>
<td>Reduce appearance of wrinkles</td>
<td>Strengthen hair, nails, skin and eyes</td>
</tr>
</tbody>
</table>

Regular treatments of our Beauty IV can slow the natural ageing process and help keep your skin, hair, and nails looking radiant and healthy.

**Benefit #3: Improved Athletic Performance**

**IV drips for athletes can:**

- Provide fast and effective hydration
- Improve athletic performance
- Reduce recovery time
- Support muscle recovery
- Maintain healthy muscle and tissue
- Flush out free radicals naturally produced by exercise
- Act as a pre-exercise endurance boost
- Act as part of a recovery plan after a competition or workout
- IV drips are ideal for both professional and amateur athletes. The powerful combination of rehydration and essential nutrients helps the body prepare for a challenging workout or competition and recover more quickly after crossing the finish line.
- Drip Hydration brings IV treatments to you whether your post-workout or post-performance is in the comfort of your home or at a hotel.
Benefit #4: Fast Hangover Relief: Symptoms of hangovers include:

<table>
<thead>
<tr>
<th>Headaches</th>
<th>Fatigue</th>
<th>Nausea, Vomiting</th>
<th>Stomach Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dizziness</td>
<td>Increased heart rate</td>
<td>Muscle Aches</td>
<td>Change in Mood</td>
</tr>
<tr>
<td>Sensitivity to light and Sound</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The symptoms of hangovers start when the blood alcohol level dips near zero and can last up to 24 hours. Staying hydrated is the best way to prevent a hangover, but if you've already woken up with a pounding headache and a sour stomach, you'll most likely be looking for a way to relieve symptoms quickly. Hangovers are hard on the body but recovery doesn't have to be. Drip Hydration's Hangover IVs contain electrolytes, saline solution, vitamins, and anti-inflammatory and anti-nausea medication. This combination of ingredients rehydrates and detoxifies your body and restores nutrients and electrolytes lost during drinking. The medications in this IV, meanwhile, bring relief from your symptoms within an hour of treatment.

Benefit #5: IVs Can Support Healthy Weight Loss

Our Weight Loss IV treatment is formulated with a unique blend of vitamins, fluids, and lipotropics (fat-burning compounds) that help your body break down fat naturally and help you burn calories faster. However, this therapy is not a weight loss solution on its own. Our Weight Loss IV is most effective when used in conjunction with healthy eating and regular exercise. Drip Hydration delivers weight loss IV treatments directly to you whether you're at the gym, the track, or on a rest day at home. Treatments rehydrate your body and restore vitamins lost during exercise to support healthy recovery between workouts.

Benefit #6: Treatments Can Help With Addiction Recovery

Drug addiction is a disease in which an individual compulsively seeks out drugs and cannot control their usage. In the early stages, people may think they have control over their usage, and in some cases, usage may seem like nothing out of the ordinary. Over time, however, larger and larger doses are needed to achieve the 'feel-good' sensation that comes with drug use. Drug addiction can impact personal relationships, friendships, and employment. Addiction recovery is hard. NAD IV treatments are an ideal cotherapy alongside a full addiction recovery program. Nicotinamide adenine dinucleotide (NAD) is a co-enzyme which your body naturally produces, and which can help you on the journey to addiction recovery.

NAD for addiction can help:

- Reduce symptoms of withdrawal, the critical first step in any drug addiction recovery program
- Detoxify your body from the free radicals produced by long-term drug use
- Repair neurotransmitters in your brain which are damaged by addiction
- Restore cognitive function and clarity
- Restore metabolic function and improve energy levels

In-Home Addiction Rehab Services in Los Angeles with Concierge MD LA

Addiction recovery is hard, but Concierge MD LA can help. They offer a full suite of in - home addiction recovery services to Los Angeles residents, including counseling, therapy, detox, IV NAD therapy for addiction, and more. With their knowledgeable staff and on-call service, they can help guide you through a safe and successful recovery.
13.4 Medical Suctioning

In medicine, devices are sometimes necessary to create suction. Suction may be used to clear the airway of blood, saliva, vomit, or other secretions so that a patient may breathe. Suctioning can prevent pulmonary aspiration, which can lead to lung infections. The main types of suctioning are nasal (in the nose), oral (mouth), nasopharyngeal and oropharyngeal (throat), and deep suctioning. Tracheostomy suctioning removes thick mucus and secretions from the trachea and lower airway that you are not able to clear by coughing. Suctioning is done when you wake up in the morning and right before you go to bed in the evening. Suctioning is also done after any respiratory treatments. If suctioning more than once, allow the patient time to recover between suctioning attempts. During the procedure, monitor oxygen levels and heart rate to make sure the patient is tolerating the procedure well. Suctioning attempts should be limited to 10 seconds.

What Are the Most Common Complications of Suctioning?

<table>
<thead>
<tr>
<th>Hypoxia</th>
<th>Airway Trauma</th>
<th>Psychological Trauma</th>
<th>Pain</th>
<th>Bradycardia</th>
<th>Infection</th>
<th>Ineffective Suctioning</th>
</tr>
</thead>
</table>

Indications for suctioning include:
- Audible or visual signs of secretions in the tube.
- Signs of respiratory distress.
- Suspicion of a blocked or partially blocked tube.
- Inability by the child to clear the tube by coughing out the secretions.
- Vomiting.
- Desaturation on pulse oximetry.

13.5 Checking Oxygen

Blood oxygen levels may be measured using a pulse oximeter. Using a Finger Pulse Oximeter - a small device that is attached to the index finger, to measure the amount of oxygen in the blood travelling round the body. The Oximeter takes the SpO₂ reading - an estimation of the amount of oxygen in the blood. The most efficient way to monitor blood oxygen levels is by an arterial blood gas or ABG test. For this test, a blood sample is taken from an artery, usually in the wrist. This procedure is very accurate, but it can be a little painful. Early signs of hypoxia are anxiety, confusion, and restlessness; if hypoxia is not corrected, hypotension will develop. Staying hydrated can be challenging, but it can also help you improve the oxygen levels.

Water molecules or H₂O are made of two hydrogen atoms and one oxygen atom. When you're hydrated, it's easier for your blood to deliver nutrients and oxygen to the rest of your body. Anxiety is a symptom that gives indication that he/she is not getting enough air to breathe. When a person is stressed or worried, the muscle that helps breathing gets tightened. This breathing becomes faster than normal. This creates panic which makes the breathing even shallower. Breathing is, however, vital in order to increase the oxygen level in the body. Slow and deep breathing increases the level of oxygen in blood. Oxygen is transported to the blood within the body through the respiratory system and that is why it influences the oxygen level if breathing is not optimal.

Normal SpO₂ Range – 95% to 100%

Symptoms of Low Oxygen in Blood (Hypoxemia)

What are the Symptoms of Low Oxygen at Night?

<table>
<thead>
<tr>
<th>Confusion</th>
<th>Restlessness</th>
<th>A sense of euphoria</th>
<th>Lack of Coordination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>Rapid Breathing</td>
<td>Shortness of breath</td>
<td>Dizziness, Lightheadedness, Fainting Spells</td>
</tr>
</tbody>
</table>
How to Increase your Blood Oxygen Naturally
- When the weather allows, open your windows. Access to fresh air is essential for breathing more easily.
- Deep breathing helps
- Grow green things. Introducing live plants into your home will increase available indoor oxygen
- Exercise
- Eat fresh green vegetables (kale, broccoli, celery etc. and iron-rich foods)

As a supplement Citrulline may be advised
- This allows blood, oxygen and nutrients to travel to all areas of the body. ...
- As a precursor for nitric oxide, citrulline supplements may, therefore, aid energy levels by increasing the availability of oxygen and nutrients to the body's cells

To keep your lungs healthy, do the following:
- Stop smoking, and avoid secondhand smoke or environmental irritants.
- Eat foods rich in antioxidants.
- Get vaccinations like the flu vaccine and the pneumonia vaccine. ...
- Exercise more frequently, which can help your lungs function properly.
- Improve indoor air quality.

13.6 Tracheostomy Care

Tracheostomy is a surgical opening in the anterior wall of the trachea just below the larynx or in other words, it is an operative procedure that creates a surgical airway in the cervical trachea. A tracheostomy may be performed as a permanent and emergency procedure.

13.7 Care of colostomy tube

Colostomy is a surgical procedure that brings one end of the large intestine out. This is when temporary colostomies are used to keep stool out of the colon.
A colostomy is an opening in the belly (abdominal wall) that's made during surgery. It's usually needed because a problem is causing the colon to not work properly, or a disease is affecting a part of the colon and it needs to be removed. The end of the colon (large intestine) is brought through this opening in the skin to form a stoma. A colostomy might only be needed for a short time (temporary), maybe for 3 to 6 months. A temporary colostomy may be used when a part of the colon needs time to rest and heal from a problem or disease. But sometimes a disease, such as cancer, is more serious and a colostomy may be needed for the rest of a person's life (permanent).

Waste material (stool) will leave the body through the stoma, where it is collected in an ostomy bag, or pouch. In some cases, a person will have a stoma but will also still have their rectum. Sometimes there can still be discharge from the bottom, where the rectum and the anus are, even though there's a stoma.

When the colon, rectum, or anus is unable to function normally because of disease or injury, or needs to rest from normal function, the body must have another way to eliminate the waste. A colostomy is an opening - called a stoma - that connects the colon to the surface of the abdomen. Colostomies are performed because of problems with the lower bowel. Some problems can be corrected by temporarily diverting stool away from the bowel. This is when temporary colostomy is used to keep stool out of the colon. Colostomy surgery is a major operation and will require a hospital stay of at least several days and up to six weeks or more of recovery at home. Patients will receive instructions from the surgeon on how to prepare in the days leading up to surgery. There are two different types of colostomy surgery: End colostomy and loop colostomy. If parts of your large bowel (colon) or rectum have been removed, the remaining large bowel is brought to the surface of the abdomen to form a stoma. An end colostomy can be temporary or permanent.
Risks of a Colostomy

<table>
<thead>
<tr>
<th>Blockage of the colostomy</th>
<th>Damage to other organs</th>
<th>An Infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Bleeding</td>
<td>Problems from Scar Tissues</td>
<td>A Prolapse of the colostomy</td>
</tr>
<tr>
<td>A wound breaking open</td>
<td>a hernia occurs when an internal organ pushes through weak area of muscle</td>
<td></td>
</tr>
</tbody>
</table>

Foods to avoid with a Colostomy

<table>
<thead>
<tr>
<th>Raw Vegetables</th>
<th>Beans, Peas and Lentils</th>
<th>Corn and Popcorn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Products</td>
<td>Brown and Wild Rice</td>
<td>Skins and Peels of Fruits (Fruit Flesh is Ok)</td>
</tr>
<tr>
<td>Nuts &amp; seeds</td>
<td>Very high fiber food such as wheat bran cereals and bread</td>
<td></td>
</tr>
</tbody>
</table>

One should eat - Protein rich foods such as meat, fish, eggs, nuts, lentils and beans. Protein and calcium rich dairy foods such as milk, cheese and yoghurt. Starchy foods such as bread, rice, potatoes, pasta. Fruit and vegetables.

Colostomy care

- Use the right size pouch and skin barrier opening
- Change the pouching system regularly to avoid leaks and skin irritation
- Be careful when pulling the pouching system away from the skin and don’t remove it more than once a day unless there’s a problem
- Clean the skin around the stoma with water

For cleaning and caring for the stoma area use plain warm water and dry wipe to gently clean around the stoma. Make sure you don’t rub. Dry the skin thoroughly with a dry wipe. Pat gently, taking care not to rub. Place used wipes in the disposal bag with the used pouch. Wash the skin gently with warm water and washcloth (soap is not needed).

- Avoid premoistened wipes and products containing alcohol, as it can affect skin barrier adherence.
- Gently and cautiously clean the peristomal skin and stoma to prevent trauma and bleeding.

13.8 Endotracheal intubation

Endotracheal intubation (EI) is often an emergency procedure that’s performed on people who are unconscious or who can’t breathe on their own. The primary purpose of intubation is to open up the airway to give oxygen, anesthesia, or medicine. removing blockages helping a person breathe if they have collapsed lungs, heart failure, or trauma.

An endotracheal tube is a flexible plastic tube that is placed through the mouth into the trachea (windpipe) to help a patient breathe. The endotracheal tube is then connected to a ventilator, which delivers oxygen to the lungs. The process of inserting the tube is called endotracheal intubation.

Endotracheal intubation is a procedure by which a tube is inserted through the mouth down into the trachea (the large airway from the mouth to the lungs). Before surgery, this is often done under deep sedation. In emergency situations, the patient is often unconscious at the time of this procedure.
QUESTIONS - Section-13

Qs. 1 What are the Seven R's of medication administration?
Qs. 2 What is importance of IV Therapy?
Qs. 3 What are indications of suctioning?
Qs. 4 Choose the correct answer:
   i) Blood Oxygen level is measured by
      a) Pulse Oxymeter;       b) Thermometer;  c) Colostomy Tube;
   ii) Do not let fresh air inside the room
        a) Access fresh air; b) do not eat green vegetables; c) do not exercise
   iii) Symptoms of low oxygen at night
        Slow heart rate; b) low blood pressure; c) restlessness
   iv) Complications of suctioning
        a) Psychological trauma; b) No respiratory distress; c) No pain
   v) Endotracheal Intubation is
        a) a routine procedure; b) the tube is hard and stiff; c) is open for feeding
A dressing is a sterile pad or compress applied to a wound to promote healing and protect the wound from further harm. A dressing is designed to be in direct contact with the wound as distinguished from a bandage, which is most often used to hold a dressing in place. Many modern dressings are self-adhesive.

### 14.1 Basic wound dressing

Remove the soiled dressing. Roll or lift an edge of the dressing, then gently remove it while supporting the surrounding skin. Inspect the dressing and wound. Note the color, amount, and odor of drainage and necrotic debris. Clean the wound.

Follow these steps to put a new dressing on:

- Put on a new pair of non-sterile gloves.
- Pour saline into a clean bowl....
- Squeeze the saline from the gauze pads or packing tape until it is no longer dripping.
- Place the gauze pads or packing tape in your wound.
- Cover the wet gauze or packing tape with a large dry dressing pad

### 14.2 Articles needed for dressing

To be properly prepared for the treatment of various injuries and wounds, medical professionals should be ready with the various wound care supplies adequately stocked and accessible.

**Wound care supplies that every medical professional should always have on hand to use as they care for patients' injuries.**

1. **Gauze Sponges**

   These sponges can be used to absorb excess body fluids before dressing a wound, and can provide a sterile barrier against dirt and bacteria as well. There are many varieties of wound gauze that can be used depending on the type, size and location of the wound being treated, including:

   - Standard gauze sponges for basic wound cleaning and care
   - Self-adhering foam to stabilize the skin around a wound
   - ABD pads for larger wounds
   - Gauze rolls for basic wound care
   - Non-adhering dressing for burns and surgical incisions
   - Pre-sterilized, cotton-filled gauze

2. **Medical Tape**

   Medical tape helps stabilize and secure the bandaging that is placed over a wound or surgical site. Medical tapes are typically self-adhesive and hypoallergenic, but come in a large variety of types that are suitable to different kinds of injuries and wounds a health care professional might encounter, including:

   - Adhesive foam, Athletic tape, Cloth tape
   - Pre-wrap, Stretch tape, Surgical tape
   - Waterproof tape

   Due to the variety of medical tapes currently available and their targeted applications, it's a good idea to keep some of each type among your wound care supplies.

3. **Non-Woven Sponges**

   Non-Woven Sponges comprises of tightly pressed cotton or polyester and/or rayon fibers. These sponges are thicker and more durable than woven sponges that them ideal for protecting wounds. Non-woven sponges leave minimal lint in a wound when they're removed, making them a great option for packing open wounds and promoting optimal healing.

   Nonwoven sponges are certainly a staple wound care supply for health care providers looking for high-performance products.
4. Alcohol Pads

Alcohol pads, sealed and packaged individually, are used to clean and prepare the skin for an injection or incision. Many wounds may require the patient to receive a shot or undergo a surgical procedure involving an incision. Alcohol pads help prevent bacteria from entering the body when the skin is pierced or lacerated. Alcohol pads can be used to clean away debris, dirt, and bacteria from an open wound. They are definitely among the basic wound care supplies that all care professionals need.

5. Face Mask

Face Masks secure easily and comfortably over the ears, are effective for protecting both the patient and the medical care professional. These masks provide a barrier against airborne pathogens and bacteria that could infect and further complicate the degree of a patient’s illness.

Masks should always be one of your high priority medical wound supplies, since they also help keep medical providers healthy and minimize the spread of contagious illnesses in a practice.

6. Bandages and Dressings

Most wounds will likely require properly dressed bandaging to protect the area and promote germ-free healing. Stocking a variety of different kinds of bandages and dressings helps medical professionals successfully treat wounds no matter their type, size, or degree of seriousness. Types of wound care bandages and medical dressing to keep on hand include:

- Basic transparent adhesive bandages
- Medicated bandages, Dry gauze dressings
- Hydrogel dressings, Hydrofiber dressings
- Foam dressings, Alginate dressings

7. Suture Removal Kit

Many types of wounds may be closed by sutures, which need to be removed once the wound has closed and healed. Suture removal kits contain pre-packaged, sterile tools such as metal littauer scissors, forceps, and gauze needed to remove sutures safely. These kits are convenient, sterile, and help prevent inadvertent introduction of bacteria to a healing wound. Suture removal kits are important wound care supplies for protecting the integrity of treatment that’s already been applied.

8. Medical Gloves

Much like face masks, medical gloves help protect medical care professionals and their patients. Wearing gloves while treating an injured patient will prevent any transmission of bacteria to their wounds, as well as protect the medical professional from any infections or viruses that may be present in the blood or body fluids of the patient. Medical practices should keep a constant supply of both latex, and latex-free gloves in stock for the continued health and safety of themselves and their patients.

9. Gauze Rolls

Medical gauze rolls are used frequently as the first layer of dressing and bandaging of a wound. The bleached, loosely woven gauze can be used to absorb moisture or wick away fluids that will be absorbed in an outer bandage on the wound. There are different gauges of wound gauze, and medical professionals typically keep a variety stocked and available to best treat and dress the wounds they may encounter.
10. Cotton Tipped Applicators
These have a wide array of uses in a professional medical environment. They can be used to clean the wound, as well as skin surrounding it. They are also useful for swabbing a wound to obtain a sample for testing to determine the presence of an infection. Cotton tipped applicators are useful in applying medicines or ointment to wounds as well, so they’re an important component of any wound care kit.

11. Medical Drapes
In the event a patient is suffering from a wound that requires surgical closure, medical drapes should be available for medical care professionals to use as a safeguard against infection. Drapes are disposable and impermeable, so they help isolate the injured area, and prevent bacteria from migrating into the wound during surgery. To prepare sufficiently for the more serious wounds they face, providers should include medical drapes in their wound dressing kits.

12. Cotton Balls
These are frequently used for cleaning, sanitizing, and prepping wound sites before bandages or dressings are applied. They can also be used as a sterile method to apply medicines or ointments to a wound to ensure it stays clean and free of bacteria. Cotton balls are an essential element of any wound dressing kit. Rayon and polyester balls are also available.

13. Hand Sanitizer
A hand sanitizer with at least 60% alcohol can help you avoid getting sick and spreading germs to others. It kills microbial cells. Wound care supplies are designed to protect patients and help them heal as quickly as possible after they’ve sustained an injury or undergone surgery. Accessible and adequate quantities of all the supplies needed for a vast range of wound types and scenarios.

14.3 Common practices
In granulated wounds with a mild to moderate exudate, a hydrocolloid dressing is a good choice as it maintains the granulation tissue and aids in epithelialization (Fig. 3B). In the presence of wound exudate, the hydrocolloid dressing absorbs liquid, forms a soft gel, and deters leakage.
QUESTIONS - Section-14
Qs. 1 Write the steps of basic wound dressing?
Qs. 2 Name 5 articles needed for dressing?
Qs. 3 What is suture removal kit used for?
Qs. 4 State True or False:
   i) Medical Gloves are made of plastic material
   ii) Cotton Tipped Applicators are used to clean the ears
   iii) Cotton balls are used to clean and sanitising the wound site
Qs. 5 State True or False:
   Articles for dressing include:
   a) Bandage, Gauze sponge, Tape
   b) Pencil, Rubber, Paper
   c) Plastic Tube, Steel pipe
15.1 Demonstration of CPR (Cardiopulmonary Resuscitation)

CPR. Cardiopulmonary Resuscitation (CPR) - It is a life saving medical procedure which is given to someone who is in cardiac arrest. It helps to pump blood around the person’s body when the heart unable to do so. It is done giving mouth-to-mouth respiration and chest compression. CPR allows oxygenated blood to circulate to vital organs such as the brain and heart. Without wasting any time one should start the CPR process as every single second counts and reduce the chance of the person survival. A cardiac arrest is caused when the electric current generated by the body, stops and the heart stops pumping blood around the body and to the brain. It causes the person to fall unconscious and stop breathing. Without CPR the person will die within minutes.

One should keep doing CPR until professional help arrives and takes over, or the person starts to show signs of regaining consciousness. If one becomes exhausted, take turns with other people nearby.

Signs of regaining consciousness include:
- coughing
- opening their eyes
- speaking or moving purposefully
- starting to breathe normally.

Stop CPR if the person regains consciousness. If the person starts to breathe normally but still unconscious, put them into the recovery position and pay attention to their breathing until help arrives. By performing chest compressions and rescue breaths, the person performing, plays the part of the heart and lungs i.e. pumping blood and oxygen around the body. When a person has a cardiac arrest a defibrillator can be used to shock the heart back into a normal rhythm. A heart attack happens when an artery supplying blood to the heart muscle becomes blocked. This starves part of the heart muscle of oxygen and causes symptoms such as chest pain or discomfort. A person having a heart attack is usually still conscious and breathing. If a heart attack is not treated, it can lead to a cardiac arrest.

Method of giving CPR

- Push on the chest. Imagine a line between the nipples and put your hands on the center of the chest right below that line. Push hard and fast - about twice per second.
- Rescue breaths. If you have had CPR training and feel comfortable performing the steps, push on the chest 30 times then give 2 rescue breaths.

The Seven Fundamental Steps of CPR

1. Put the heel of your dominant hand at the center of the person’s chest
2. Put your other hand over your dominant hand, then interlock your fingers
3. Start chest compressions
4. Open the person's mouth
5. Add a rescue breath
6. Watch the chest fall, then do another rescue breath
7. Continue the 30 compressions, 2 breaths cycle
15.2 Mock Drill

- Respiratory and/or Cardiac Arrest
- Emergent need for additional assistance
- Time Lost is Brain Lost
**QUESTIONS - Section - 15**

Qs. 1  Why is CPR done? Define CPR.

Qs. 2  What are 7 steps of CPR?

Qs. 3  What are the signs of regaining consciousness after CPR is given?

Qs. 4  State True or False:
   i) One should push on the chest 50 times before giving rescue breath during CPR
   ii) CPR should be given at least 10 minutes after the person has fallen unconscious
   iii) Coughing & opening the eyes are the signs of the person gaining consciousness
   iv) Heart Attack and Cardiac arrest are the same.
   v) CPR helps the heart and lung to start pumping blood and oxygen around the body

Qs. 5  Choose the correct answer:
   i) Electric rhythm in the heart can be regained by using:
      a) Defibrillator; b) Stethoscope; c) using electrodes
   ii) The sign when the person starts gaining consciousness:
      a) Speaking or moving purposefully; b) starts singing; c) starts crying
   iii) When the heart artery gets blocked during a heart attack:
      a) The person starves of food; b) the person needs water; c) oxygen doesn’t reach the heart muscle.
First Aid

16.1 Basic First Aid in Emergency situations

- First aid is the first and immediate assistance given to any person suffering from either a minor or serious illness or injury, with care provided to preserve life.
- First aid helps ensure that the right methods of administering medical assistance are provided. Knowing how to help a person is just as important in emergency situations. It only takes six minutes for the human brain to expire due to lack of oxygen.

The 5 main aims of first aid are:

- Preserve life
- Deal with cuts, scrapes, grazes, burns and other minor injuries
- Managing eye injuries of different kinds
- Immobilizing fractures, sprains and strains of joints
- Preventing choking
- Stopping the excessive bleeding
- Helping unconscious patients

16.2 Bandages:

A bandage is a piece of material used either to support a medical device such as a dressing or splint, or on its own to provide support to or to restrict the movement of a part of the body.

Other bandages that are used without dressing are - Elastic Bandage is used to reduce swelling or provide support to a sprained ankle. Tight bandages can be used to slow blood flow to an extremity, such as when a leg or arm is bleeding heavily.

Bandages are available in a wide range of types, from generic cloth strips to specialized shaped bandages designed for a specific limb or part of the body. Bandages can often be improvised as the situation demands, using clothing, blankets or other material.

Gauze Bandage - The most common type of bandage is the gauze bandage, a woven strip of material with a Telfa absorbent barrier to prevent adhering to wounds. A gauze bandage can come in any number of widths and lengths and can be used for almost any bandage application, including holding a dressing in place.

Short stretch compression bandages are applied to a limb (usually for treatment of lymphedema or venous ulcers). This type of bandage is capable of shortening around the limb after application and is therefore not exerting ever-increasing pressure during inactivity. This dynamic is called resting pressure and is considered safe and comfortable for long-term treatment. Conversely, the stability of the bandage creates a very high resistance to stretch when pressure is applied through internal muscle contraction and joint movement. This force is called working pressure.

Long stretch compression bandages have long stretch properties, meaning their high compressive power can be easily adjusted. However, they also have a very high resting pressure and must be removed at night or if the patient is in a resting position.

Triangular bandage

Also known as a cravat bandage, a triangular bandage is a piece of cloth put into a right-angled triangle, and often provided with safety pins to secure it in place. It can be used fully unrolled as a sling, folded as a normal bandage, or for specialized applications, as on the head. One advantage of this type of bandage is that it can be makeshift and made from a fabric scrap or a piece of clothing. The Boy Scouts popularized use of this bandage in many of their first aid lessons, as a part of the uniform is a "neckerchief" that can easily be folded to form a cravat.

Tube bandage

A tube bandage is applied using an applicator, and is woven in a continuous circle. It is used to hold dressings or splints on to limbs, or to provide support to sprains and strains, so that it stops bleeding.

Abdominal Bandage

A single wide cravat or several narrow ones used to hold a dressing in place or to exert moderate pressure.
Adhesive Bandage
A bandage made of adhesive tape.

Amputation-Stump Bandage
An elastic bandage applied to an amputation stump to control postoperative edema and to shape the stump. The elastic bandage is applied in a recurrent or figure-of-eight fashion with more pressure applied to the distal, rather than the proximal, portion of the limb.

Ankle bandage
A bandage in which one loop is brought around the sole of foot and the other around the ankle and is secured in front or on the side.

Axilla Bandage
A bandage with a spica-type turn starting under the affected axilla, crossing over the shoulder of the affected side, and making the long loop under the opposite armpit.

Back Bandage
An open bandage to the back, applied like a chest bandage, the point placed above the scapula of the injured side.

Barton Bandage
Breast Bandage
A suspensory bandage and compress for the breasts.

Butterfly Bandage
An adhesive bandage used in place of sutures to hold wound edges together. Filmy sterile adhesive strips have replaced the butterfly bandage.

Buttocks Bandage
Capeline Bandage
A bandage applied to the head or shoulder or to a stump like a cap or hood.

Chest Bandage
A bandage that is applied to the chest, e.g., figure of eight (spica), but does not affect expansion of the chest.

Circular Bandage
A bandage applied in circular turns about a part.

Cohesive Bandage
A bandage made of material that sticks to itself but not to other substances, used to bandage fingers and extremities or to build up pads.

Cravat Bandage
A triangular bandage folded to form a band around an injured part.

Cravat Bandage for Clenched Fist
A hand bandage to arrest bleeding or to produce pressure. The wrist is placed on the center of the cravat; one end is brought around over the fist and back to the starting point, and the same procedure is then repeated with the other end. The two ends are pulled tight, twisted, and carried around the fist again so that pressure is placed on the flexed fingers.

Cravat Elbow Bandage
A bandage in which the elbow is bent about 45° and the center of the bandage is placed over the point of the elbow. One end is brought around the forearm and the other end around the upper arm; the bandage is pulled tight and tied.

Cravat Bandage For Fracture Of Clavicle
A bandage in which one first puts a soft pad 2 × 4 in (5.1 × 10.2 cm) in the forepart of the axilla. A sling is made by placing the point of the open bandage on the affected shoulder; the hand and wrist are laid on it and directed toward the opposite shoulder, and the point is brought over and tucked underneath the wrist and hand. The ends are then lifted; the bandage is laid flat on the chest; the covered hand is carried up on the shoulder; the ends are brought together in the back and tied, the tightness being decided by how high the shoulder should be carried. A cravat bandage is then applied horizontally above the broad part of the elbow and tied over a pad on the opposite side of the chest. Tightening this cravat retracts the shoulders and scapulae.

Demigauntlet Bandage
A bandage that covers the hand but leaves the fingers uncovered.

Ear Bandage
A T bandage for the ear. A piece is sewn across the right angle of the T bandage.
Elastic Bandage
A bandage that can be stretched to exert continuous pressure. It usually is made of special weaves or of material containing rubber and is used on swollen extremities or joints, on the chest in empyema, on fractured ribs, or on the legs to support varicose veins.

Eye Bandage
A bandage for retaining dressings. The simple roller bandage for one eye or the monocle or crossed bandage. The binocular or crossed bandage for both eyes is 2 in×6 yd (5.1 cm×5.49 m).

Figure-of-Eight Bandage
A bandage in which the turns cross each other like the figure eight, used to retain dressings, to exert pressure for joints (or to leave the joint uncovered), to fix splints for the foot or hand, for the great toe, and for sprains or hemorrhage.

Finger Bandage
A roller bandage with oblique fixation at the wrist.

Foot Bandage
A triangular bandage in which the foot is placed on the triangle with the base of the bandage backward and behind the ankle, and the apex carried upward over the top of the foot. The ends are brought forward, folded once or twice, crossed and carried around the foot, and tied on top.

Fore Arm Bandage
A triangular open sling bandage for support of the forearm.

Four-Tailed Bandage
A strip of cloth with each end split into two. The tails are used to cover prominences such as elbow, chin, nose, or knee.

Groin Bandage
A bandage that is most easily applied with the patient standing or lying on a pelvic rest. A spica bandage encircles the trunk and the crossing is placed either anteriorly or laterally. To bandage both groins, the double spica is used. Such a double bandage is used principally in applying a plaster cast.

Hand Bandage
A demi gauntlet bandage that secures a dressing on the back of the hand. For thumb and hand, the ascending spica of the thumb, with spiral of the hand, is used. A triangular bandage is used for an open bandage of the hand. A descending spica is used for the thumb and figure-of-eight bandage for an amputation stump or clenched fist.

Head Bandage
Any bandage applied to the head, usually by wrap-around technique, that uses bony prominences as anchors or stays, and that carefully and completely covers the site of injury or the suture line.

Heel Bandage
A triangular bandage used for the heel.

Hip Bandage
A triangular open bandage of the hip. A cravat bandage or other band is tied around the waist; the point of another bandage is slipped under and rolled or pinned directly above the position of the wound. The base is rolled up and the ends are carried around the thigh, crossed, and tied.

Immobilization Bandage
An immovable bandage A bandage for immobilizing a part.

Impregnated Bandage
A wide-meshed bandage used to make molds or immobilize parts of the body. The material is impregnated with a substance such as plaster of Paris, which is applied wet and hardens after drying.

Knee Bandage
A knee cravat in which triangular and the figure-of-eight bandages are used.

Leg Bandage
A bandage applied by fixing the initial end by a circular or oblique fixation at the ankle or with a figure-of-eight of the foot and ankle.

Many-Tailed Bandage
A bandage or binder with split ends used for the trunk and limbs; a piece of roller to which slips are stitched in an overlapping pattern.

SEE: four-tailed bandage
Neck Bandage
Neck Spica: Bandage 2½ in × 8 yd (6.4 cm × 7.3 m). Bandage following thyroid gland surgery: Roller bandage 2½ in × 9 yd (6.4 cm × 8.2 m). Adhesive plaster bandage for thyroidectomy: Used to hold dressing on wound in place. A small dressing is applied to center of strip and then applied to back of neck. Special bandage: A double-loop bandage of the head and neck made by using a figure-of-eight turn.

Oblique Bandage
A bandage applied obliquely to a limb, without reverses.

Plaster Bandage
A bandage stiffened with a paste of plaster of Paris, which sets and becomes very hard.

Pressure Bandage
A bandage for applying pressure, usually used to stop hemorrhage or prevent edema.

Protective Bandage
A bandage that covers a part or keeps dressings in place.

Quadrangular Bandage
A towel or large handkerchief, folded variously and applied as a bandage of head, chest, breast, or abdomen.

Recurrent Bandage
A bandage over the end of a stump.

Reversed Bandage
A bandage applied to a limb in such a way that the roller is inverted or half twisted at each turn so as to make it fit smoothly and resist slipping off the limb.

Roller Bandage
A long strip of soft material, usually from ½ to 6 in (1.3 to 15.2 cm) wide and 2 to 5 yd (1.83 to 4.57 m) long, rolled on its short axis. When rolled from both ends to meet at the center, it is called a double-headed roller.

Rubber Bandage
A rubber roller bandage used to apply pressure to prevent swelling or hemorrhage of a limb.

Shoulder Bandage
An open bandage of the shoulder (spica bandage); a shawl bandage of both shoulders and neck.

Smart Bandage
A removable wireless monitor that attaches to a patient and monitors blood pressure, cardiac rhythm, pulse, respiratory rate, and volume status.

Spica Bandage
A bandage in which a number of figure-of-eight turns are applied, each a little higher or lower, overlapping a portion of each preceding turn so as to give an imbricated appearance. This type of bandage is used to support, to exert pressure, or to retain dressings on the breast, shoulder, limbs, thumb, great toe, and hernia at the groin.

Spiral Bandage
A roller bandage to be applied spirally.

Spiral Reverse Bandage
A technique of twisting, in its long axis, a roller bandage on itself at intervals during application to make it fit more uniformly. These reverse folds may be necessary every turn or less often, depending on the contour of the part being bandaged.

Stellate Bandage
A bandage that is wrapped crosswise on the back or shoulder.

Suspensory Bandage
A bandage for supporting any part but esp. the breast or scrotum.

T Bandage
A bandage shaped like the letter T and used for the female perineum and, in certain cases, the head. SYN: SEE: buttocks bandage.

Tailed Bandage
A bandage split at the end.

Triangular Bandage
A square bandage folded diagonally. When folded, the several thicknesses can be applied to afford support.
QUESTIONS - Section - 16
Qs. 1 What do you understand by First Aid?
Qs. 2 Name 5 types of bandages briefly explaining each type?
Qs. 3 What type of bandage is used for Fore Arm?
Qs. 4 State True or False:
   i) Figure-of-Eight bandage is used for fore wounds on the backside
   ii) Four-Tailed Bandage is used for Hip wounds
   iii) Elastic Bandage is the one that be stretched to exert continuous pressure
Qs. 5 State Yes or No
   i) Chest Bandage is applied to the chest in a figure of eight (Y/N)
   ii) A breast bandage is to compress the breasts (Y/N)
   iii) Cohesive bandage has to be tied in a shape of eight.
17.1 Basics of Fire and Safety

Fire is the term given to the combustion reaction which results from interaction of Heat + Fuel + Oxygen. This combination is called Triangle of Fire.

According to the National Building Code (NBC), buildings should be designed, constructed, equipped, maintained and operated as to provide adequate means of egress to avoid unnecessary danger to life and safety of the occupants from fire, smoke, fumes or panic during the period necessary for escape.

Part-4 of the National Building Code of India-2005. The Code specifies construction, occupancy and protection features that are necessary to minimize danger to life and property from fire.

- The Hospital should an NOC from the state Fire Department
- A committee headed by a Senior person as Chairman should be in place with meetings being held once 3 months minimum
- A Fire Safety Officer with Fire Engineering background and conversant with the fire safety protocols should be appointed who would be in-charge of all matters concerning Fire Prevention & Safety
- A Fire Safety Manual duly approved by the Safety Committee should be in place
- An Emergency Command Centre should be available and should become functional in emergency situation. The Centre should be aware of the names of the Safety Committee Members. A designated person should be made responsible for informing all Emergency Command Members.

17.2 ABC Extinguisher

An ABC Fire Extinguisher is the one that use Mono ammonium phosphate, ABC Dry Chemical, ABE Powder, tri-class, or multi-purpose dry chemical is a dry chemical extinguishing agent used on class A, class B, and class C fires. It uses a specially fluidized and siliconized mono ammonium phosphate powder. It is mainly used in the house or workplace where a fire could result from burning trash, wood, paper, liquids, gases, solvents & electrical equipment. ABC Fire Extinguishers are very versatile. They are often the ideal choice being that they are able to put out many different types of fires.
QUESTIONS – Section 17

Qs. 1 What causes Fire?
Qs. 2 What are the Rules that specify the protection features necessary for safety to life and property from Fire?
Qs. 3 What is meant by ABC Fire Extinguisher?
Qs. 4 What kind of Fire Extinguisher is suitable for Hospitals?
Qs. 5 Briefly explain the Emergency Command Centre?
Test your knowledge Section-9 to Section-17:

1. What are the types of bed making for home care settings?
2. What is the purpose of changing an occupied bed?
3. What are the steps of hand washing?
4. Why is catheter important and briefly explain care of it in male patients.
5. How does a professional massage therapist help the older age patients?
6. Who is authorized to verify and certify the death of a person?
7. List down some senior citizen safety tips.
8. What are the do's and don'ts of safely transferring older patients?
9. List down 5 standard precautions for infection control and prevention.
10. What are the color codes for segregation of biomedical waste? Give 2 examples of each.
11. What are the fundamentals of drug administration?
12. What are the symptoms of hangover and how IV-Therapy provides fast hangover relief?
13. List 5 steps to keep your lungs healthy
14. Write 5 main aims of first aid
15. In what places ABC fire extinguishers are suitable for use
16. Chronic constipation can lead to:
   - Diarrhea
   - Headache
   - Fecal impaction
   - Dizziness
17. All are equipments needed in changing diaper except:
   - Clean adult diaper
   - Barrier cream
   - Disposable medical gloves
   - Antibiotic tablets
18. Universal precautions of infection control includes:
   - Hand hygiene
   - Eating chocolates
   - Cough without etiquettes
   - Environmental pollution
19. All are included in 7Rs of medication administration except-
   - Right patient
   - Right money
   - Right time
   - Right dosage
20. Complication of suctioning is
   - Headache
   - Airway trauma
   - Stomachache
   - Body ache
Personality traits and body language:

18.1 Skills a Geriatric Care Assistant poses -

Healthcare assistants will need to possess the following skills:

- A caring nature
- Should be very approachable
- Have an open mind
- The desire to work with people of all ages and from all backgrounds
- Sensitivity towards other’s emotions
- Good communication skills
- Good listening skills
- A tactful nature
- Empathy
- The ability to keep sensitive information confidential at all times
- A respectful approach to patients and their family members
- The ability and desire to take own initiative while recognizing their limitations
- Flexibility
- The ability to work as part of a team – (with doctors, nurses, other healthcare professionals)
- The ability to remain patient and calm in tough situations
- A good sense of humor to keep the environment light
- Reliability
- Good organizational skills

18.2 Personality traits

What is Personality?

An individual’s personality is a unique entity resulting from the interaction between a person and his environment. It can be understood in terms of a person’s behavior, actions, postures, words, attitudes and opinions. Personality can also be described as an individual’s hidden feelings about the external world.

Personality Development

It quintessentially means enhancing and grooming one’s outer and inner self to bring about a positive change to your life. Each individual has a distinct persona that can be developed, polished and refined. This process includes boosting one’s confidence, improving communication and language speaking abilities, widening ones scope of knowledge, developing certain hobbies or skills, learning fine etiquettes and manners, adding style and grace to the way one looks, talks and walks and overall imbibing oneself with positivity, liveliness and peace.

*Personality development is gaining more and more importance because it enables people to create a good impression about themselves on others; it helps them to build and develop relationships, helps in your career growth and also helps to improve your financial needs. After all, personality development is nothing but a tool that helps you realize your capabilities and your strengths making you a stronger, a happier and a cheerful person.*

Personality Development depends on:

- Self awareness
- Clarity of personal and professional goals.
- Sincere efforts to learn the necessary skills and remove weaknesses.
- Character and conduct
- Self-Confidence, will-power and self-discipline
- Positive thinking & good moral values
- Duty, responsibility and accountability
- Acceptance of others feedback, especially criticism

**IMPORTANT PERSONALITY TRAITS -**

*Five Important Traits of a favorable Personality are:*

Appearance  Intelligence Smartness
Trustworthy, High integrity & Responsible
Being Beneficial/ Advantageous

*Negative aspects of a weak personality are:*

Unhygienic Hurting attitude Useless approach
Non-beneficial communication
Untrustworthy, Irresponsible, Lack of integrity

**Personality does not mean that you should have looks**

Personality represents the people how you are. It is not just looks that are important and that define who you are. The personality of an individual is determined by his/her appearance, behavior, attitude, education, values and some more varying characteristics. Personality defines who you are and how you respond to various situations. It is essential to focus on the personality, which matters the most.

**Dress up well:**

Focus on how you should dress up for office, party or any other occasion. Wear according to the occasions. Good looks no doubt will add to your personality but what matters the most is how you are dressed up. It plays a major role in personality development.

**Each person is unique:**

Remember that each individual is different and has his/her unique characteristics and qualities. Comparing yourself to others around only increases the distress, especially when you start focusing on where you are lacking compared to others. It is important that you channelize your energy towards your positive traits. So never imitate anyone. Be the one which you are in actual and never pretend.

**Learn social skills:**

Only good-looking will never be sufficient to take you forward in life or help you in your relationships with people. Instead, hone your social skills. The more success one has in social spheres of life, the better you would feel about yourself. Try to make use of positive gestures while interacting with others and watch out for your body language too.

**Do not avoid social interactions:**

Just because you feel you aren’t good-looking, do not avoid meeting people. Look for opportunities, go to different events, participate in social gatherings and be proactive. The more you eschew social interaction, the worse you would feel about yourself. I would suggest you be gregarious. This is also one of the promising personality development tips.

**Know your positives:**

If every individual has his or her limitations, then he or she also has positives. These positive are what you need to concentrate on. Know your strengths. Acknowledge them and work with them. It would definitely help you to overcome your challenges and take you into a long run.

**Step Out Of Your Comfort Zone**

Be prepared to challenge yourself by learning new skills. For most people it’s a huge learning curve to start an online business, so you must have a very positive, open-minded attitude and embrace any changes you need to make.
Don’t Fear Failure

Don’t worry about making mistakes, you will make loads in your journey and a lot of them may hold you back for a while, but once you’ve made them, these methods can be eliminated and you can move on.

Make Yourself Known

Brand yourself in all your communications. Whatever content you put out there is a slice of your personality, so make sure it shows you in a positive light. It’s you’re trying to sell to other people, so the more personal the message the better.

Come Across As A Leader

Whatever you learn and however little you know, use it well. Become an authority on whatever topic you tackle, then you have the knowledge to pass it on to others and if you put your message across in the right way, you will attract followers. Express yourself and always do, what you say.

Effort And Consistency

This is linked to your daily plan but is crucial. Marketing your business every day with relevant and sustained effort is much better than huge bursts of activity once a month. Effort and regularity will win the day every time.

Don’t Give Up

I know this sounds like an obvious one to end on, but there are loads of people who literally could have made it through with only a few more weeks or months of effort. They had done everything right apart from seeing it through to success and it was just that final bit of belief that prevented them.

Be funny & don’t be serious always

No one likes boring and serious people. Everyone enjoys the company of someone who makes them laugh. Do not beat around the bush just to make others laugh. Try to add fun while having the conversation, others will naturally be attracted to you.

18.3 Body Language

Thirteen Ways to Correct Body Language

1. Don’t cross your arms or legs – Crossing your arms, or even legs make you appear defensive. Keep them open.
2. Have eye contact, but don’t stare – Looking away from people who you are talking to might make them think that you are not confident, or that you are not paying attention. Always maintain eye-contact, but do not keep staring at them.
3. Relax your shoulders – When you are nervous or worried, your shoulders might move up and forward a little bit, or sag downwards. Even if you are not worried or nervous, such a posture will make others think you are. Therefore, always loosen up your shoulders. You can shake them a bit or move them back slightly.
4. Nod when they are talking – When you are talking to people, nod once in a while to show that you are paying attention, and also that you understand what they are saying.
5. Don’t slouch, sit up straight – Don’t stoop or slouch. Keep your back straight, but not rigid. A rigid back is a sign of discomfort.
6. Lean, but not too much – If you want to show that you are interested in what someone is saying, lean toward the person talking. If you want to show that you’re confident in yourself and relaxed, lean back a bit. But don’t lean in too much or you might seem needy. Or lean back too much or you might seem arrogant.
7. Smile and laugh – Relax a bit, smile and laugh when someone says something funny. People will listen more if you seem to be a positive person. But don’t be the first to laugh at your own jokes, it makes you seem nervous and needy. Smile when you are introduced to someone but don’t keep a smile ready on your face, you’ll seem insincere.
8. Don’t touch your face – It might make you seem nervous and can be distracting for the listeners or the people in the conversation.
9. Keep you head up - Don’t keep your eyes on the ground, it might make you seem nervous. Keep your head up straight and your eyes towards the horizon.
10. Slow down a bit – This goes for many things. Walking slower not only makes you seem more calm and confident, it will also make you feel less stressed. If someone addresses you, don't turn and look at them at once. Instead, turn your head a bit more slowly.

11. Don’t fidget – Don’t shake your leg or tap your fingers against the table rapidly. You’ll seem nervous. Try to relax, slow down and focus your movements.

12. Use your hands more confidently – Use your hands to describe something or to add weight to a point you are trying to make. But don’t use them too much or it might become distracting. And don’t let your hands flap around.

13. Don’t stand too close – It makes people uncomfortable when you stand too close to them. Give them some space.

18.4 – Core Life Skills

WHAT ARE SKILLS?

The capability to perform something efficiently is known as a skill. A skill is a learned ability to do something well. Hence, the qualities that individuals can develop to lead a successful life are known as life skills.

WHAT ARE LIFE SKILLS?

World Health Organization defines Life Skills as "the abilities for adaptive and positive behaviour that enable the individuals to deal effectively with the demands and challenges of everyday life".

CORE LIFE SKILLS :The set of Ten Core kills can be categorised as below. These are:

<table>
<thead>
<tr>
<th>SOCIAL SKILLS</th>
<th>THINKING SKILLS</th>
<th>EMOTIONAL SKILLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Awareness</td>
<td>Creative &amp; Critical Thinking</td>
<td>Analytic and creative thinking</td>
</tr>
<tr>
<td>Empathy</td>
<td>Decision Making</td>
<td>Coping with Stress</td>
</tr>
<tr>
<td>Effective Communication</td>
<td>Problem Solving</td>
<td>Coping with Emotions</td>
</tr>
</tbody>
</table>

SOCIAL SKILLS:

Self-Awareness focuses on valuing oneself, including our personality, attributes, tastes and distastes. By developing attributes like self-awareness, we will be able to comprehend the amount of stress or pressure a person is in. It is important to develop self-awareness to eventually develop empathy, effective communication and interpersonal relationships.

Empathy is one of the major tools needed to form a positive relationship among our loved ones and our society. The value of imagining one’s life from their perspective can be learned by empathy. Empathy is important because it improves our communication with others and can help us understand and accept others better. Empathy can also drastically improve social interactions, especially between multicultural individuals and societies.

Interpersonal skills help us to relate in positive ways while interacting with people and being able to make and keep friendly relationships that are of great importance for our mental and social well-being. It may mean maintaining good relations with family members who are the most important source of social support. It may also mean an ability to end relationships constructively.

Effective Communication means that we are able to express ourselves, both verbally and non-verbally, in ways that are appropriate to our cultures and situations. This means being able to express opinions and desires, and also needs and fears. And, it would also mean being able to ask for advice and help in the time of need.
THINKING SKILLS

Critical Thinking is an ability to analyse and interpret information in a systematic manner. Critical thinking is highly responsible for influencing and recognising behaviour that can be used to lead a well-balanced life.

Creative Thinking is a novel way of seeing or doing things that is characteristic of four components—fluency (generating new ideas), flexibility (shifting perspective easily), originality (conceiving of something new), and elaboration (building on others’ ideas).

Decision Making helps us to deal constructively with decisions about our lives. It teaches people how to make decisions about their actions in relation to a healthy assessment of different options and what effects these different decisions are likely to have.

Problem Solving helps us to deal constructively with problems in our lives. Significant problems that are left unresolved can cause mental stress and give rise to accompanying physical strain.

EMOTIONAL SKILLS

Coping with Stress means recognizing the sources of stress in our lives, recognizing how they affect us, and how we act in a way that helps us control our levels of stress by changing our environment or lifestyle, and learning how to relax.

Coping with Emotions means recognizing emotions within us and others, being aware of how emotions influence behaviour and being able to respond to emotions appropriately. Intense emotions like anger or sadness can have negative effects on our health if we don't respond to them appropriately.

METHODOLOGIES TO TRANSACT LIFE SKILLS

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>TECHNIQUES</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Discussion</td>
<td>Involves exchange and sharing of ideas, experiences, facts and opinions on a given topic. Can be used in large and small groups.</td>
</tr>
<tr>
<td>2</td>
<td>Debate</td>
<td>A discussion involving two opposing parties with each group expressing opinions or views about a given topic or subject.</td>
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<tr>
<td>3</td>
<td>Role Play</td>
<td>Short drama episodes or simulations in which participants experience how a person feels in a similar real life situation</td>
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<tr>
<td>4</td>
<td>Brainstorm</td>
<td>Free expression of ideas among participants on a given issue or question.</td>
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<tr>
<td>5</td>
<td>Story Telling</td>
<td>Telling of narratives with a particular theme, based on actual events.</td>
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<tr>
<td>6</td>
<td>Song and dances</td>
<td>Musical compositions on topical issues and themes.</td>
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<tr>
<td>7</td>
<td>Drama</td>
<td>Composition in verse or prose intended to portray life, character or to tell a story. It usually involves presenting conflicts and portraying emotions through action and dialogue.</td>
</tr>
<tr>
<td>8</td>
<td>Case Study</td>
<td>True or imaginary story which describes a problem, a situation or a character. May also be a dilemma in which the participants should come up with opinions on how they would resolve the conflict.</td>
</tr>
<tr>
<td>9</td>
<td>Miming</td>
<td>Acting without words by the use of gestures, signs, physical movements and facial expressions. The whole idea is communicated through actions.</td>
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<tr>
<td>10</td>
<td>Poetry &amp; recitals</td>
<td>Compositions which capture events, themes and situations in a short and precise manner. Used in communicating feelings, opinions, ideas, habit and other experiences. Can be in the form of songs, recitations, chants or be dramatized to enhance the acquisition of various LifeSkills.</td>
</tr>
<tr>
<td>11</td>
<td>Question &amp; Answer</td>
<td>A teacher or learner tries to find information through asking questions and getting answers from the respondent. An effective method of transacting Life Skills Education as it stimulates a learner's thinking and creativity.</td>
</tr>
<tr>
<td>12</td>
<td>Games</td>
<td>A structured play can sometimes be used as an educational tool for the expression of aesthetic or ideological elements. It involves mental and physical simulation, and often both.</td>
</tr>
<tr>
<td>13</td>
<td>Team Work</td>
<td>Students may be organized to work in pairs or small groups in the classroom. Promotes the maximum participation of all students as they are involved in “thinking and doing” and cooperative skills, such as, listening and communication skills, problem solving and sharing of tasks.</td>
</tr>
<tr>
<td>14</td>
<td>Simulation</td>
<td>An assumption or imitation of a particular appearance or form; the act or process of pretending</td>
</tr>
<tr>
<td>15</td>
<td>Demonstration</td>
<td>A method teaching by example rather than simple explanation or an act of showing or making evident.</td>
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</table>
19.1 - Self introduction

1. **Name**: 
   My name is _______
   I am _____________

2. **Area of Living**: 
   I live in _________
   I stay at _________
   I belong to ___________
   I am presently / currently living in _________
   I am from ____________

3. **Family Details**: 

   **About My Family**
   
   **a) Father’s Name & Profession**: 
   My father’s name is Mr. __________
   He is a _________ (Father’s profession) / He works as a _________

   **b) Mother’s Name & Profession**: 
   My mother’s name is Mrs. ___________
   She is a _________ (mother’s profession) / She works as a _________

   **c) Number of Brothers & Sisters**: 
   I have _______(no.) brother(s) & _______(no.) Sister(s)

4. **Academic and Educational Qualification**: 

   **a) Study / Job**: 
   I have completed my class 10th from _____ (board) in ______ (year)
   I have completed my class 12th from _____ (board) in ______ (year)
   I have completed my graduation from _______ (University) in ____ (year)
   I am currently pursuing _____ (Course name)

5. **Job Experience**: 
   I have a Job Experience of _______ (years/ months) in _____ field.
   I am a fresher in this field.
   I have done an internship in _______

6. **Aim / Goal / Objective of Life or Career**: 

   I want to become a successful Health care professional
   I want to become a successful Nurse
7. **Strengths**:---

(Mention any 4 strengths among 10 given strengths)
- Hard working
- Good Communication Skills
- Positive Attitude
- Quick Learner
- Ambitious
- Friendly
- Helpful
- Self-Confident
- Team Worker
- Patience & Flexible

**Hobbies**

- Listening to Music
- Playing cricket
- Net surfing
- Travelling
- Cooking
- Reading Books/Novels
- Helping others

19.2 - Greeting someone

**Business Greetings and Formal Greetings**

It's best to begin by using formal greetings in most business situations, and then listen to how your co-workers or business partners greet you.

1. **Good morning, Good afternoon, or Good evening**

These are formal ways of saying “hello”, which depend upon the time of day. “Good night” is only used to say “good bye”, to end the day. So if you meet someone late in the day, remember to greet them with “good evening”, and not “good night”.

2. **It's nice to meet you or Pleased to meet you**

These greetings are formal and polite and courteous. This greeting is used the first time you meet someone. Next time you see the person you can show that you remember him or her by saying “it's nice to see you again”.

3. **How have you been?**

This greeting question is used by people who have already met and know each other. This answers if you have been well since the last time the two of you met.

4. **How do you do?**

This greeting is VERY formal, and quite uncommon, but it may still be used by some older people. The proper response is “I’m doing well”

**Informal greetings**

1. **Hey, Hey man, or Hi**

You can use “hey” and “hi” to greet someone instead of “hello”. Both are particularly popular among younger people.

2. **How’s it going? or How are you doing?**

These are casual ways of asking “how are you?” You can always uses “how are you?” but an alternatively, you can use these expressions to greet almost anyone. You can answer “it’s going well” or “I’m doing well” depending on the question. You can just answer “good”.
3. What's up?, What's new?, or What's going on?
These are some other informal ways of asking “how are you?” which are used to casually greet someone you have met before. Answer it with “nothing” or “not much”. Or, you could also briefly describe anything new or interesting that’s going on in your life, before asking “what about you?” to continue the conversation with the person.

4. How's everything ?, How are things?, or How's life?
Other ways of asking “how are you?” They can be used to greet someone you already know. To these, you can answer “good” or “not bad” followed by briefly sharing any interesting news about your life, and asking the person “what about you?” or another greeting question.

5. How's your day? or How's your day going?
This question also means “how are you?” but not just right now, but how you’ve been all day. “It’s going well” is the grammatically correct response, but you can answer it with “fine”, “good” or “alright”.
“good”, “fine” or “not bad” are perfect answers to almost any greeting question.

6. Good to see you or Nice to see you
These casual greetings are used with friends, co-workers or family members—people you know but haven’t seen in a while.

19.3 – Attending /Making a phone call

Asking for the person you want to talk to:
May I speak to (name of the person)?

Is (name of the person) there?
Am I speaking to (name of the person)?

Identifying yourself:
I am (your name).
My name is (your name).
I am (your name) from (company or organization on whose behalf you are calling).
My name is (your name). I am calling from (company or organization on whose behalf you are calling).

Asking if the call-recipient is free to talk:
Is this a good time to talk?
Are you free to talk?

When the person you want to talk to is not in:
I would like to leave a message.
Could you take a message for him/her?
I will call later/ I will call after some time.

While hanging up:
Thank you for your time. Have a nice day!
Thank you. Have a nice day!

Receiving a phone call:
When the caller asks for you:
This is (your name) speaking.
You are speaking to (your name).
When the caller asks for someone who is not in/cannot come to the phone:
I am afraid he/she is not in at the moment Or He/she cannot come to the phone right now.
Would you like to leave a message? Or Can I take a message?
Could you call after some time? Or Could you call later?

When the caller asks you if you are free to talk:
Sure! What is this about?
I am sorry. I am a little busy at the moment.

While hanging up:
Thanks for calling.

19.4 – How to talk to Doctor/ Hospital on call

Using the knowledge gained from above topic – “Making a phone call” any call can be approached. In this topic we're specifically going to talk about what to ask from your doctor or the clerical staff.

1. Ask your doctor for the best way to reach him or her.
When you have your first appointment with your doctor, ask them the best way to get a hold of them in an emergency situation. Take their contact numbers, email id, etc.

2. Giving too much information is good. Be specific about symptoms.
Report symptoms as they are – no need to ignore even the slightest symptom. If it's the worst pain you've ever had, say that. Give details.

3. Set a time frame before hanging up.
Be clear that you need to talk to them within a set time frame for a follow up and would like to avoid an emergency room visit, if possible.

4. Don’t be shy about using a health buddy.
Everyone needs another set of eyes and ears, and another voice to speak up, to deal with our natural denial as patients, and be our advocates. Ask any of your friends, or family member to examine and talk for you.

5. Specifically ask for your doctor on the phone.
You always have the option of insisting on speaking with your doctor. But if he’s not available right now, don’t wait for a callback if you believe it's a medical emergency. Be your own advocate and get to the emergency room with a friend's help or ambulance. Many people keep waiting for a callback - and then, it's too late.
Digital Literacy

20.1 - How to order Medicine Online?

There are 2 ways in which you can order medicines – 1. On call 2. Online through an Application/website

In the first method, you need to identify the nearest pharmacy shops, which deliver medicines on call. Keep their contact numbers handy, or else you can easily locate them on Google maps, by typing ‘pharmacies/medical store near me’. You will find a list of store according to their distances.

You need to make a call, place your order and confirm your mode of payment.

In the second method, on how to order medicines online through an application or website, you first need to identify the apps/ websites that deliver in your area.

For NCR, some good suggestions could be 1mg, Medlife, Netmeds, Pharmeasy etc.

Open your browser, type name of any website that delivers in your area, eg – 1mg. Some won't work through website and you'll have to download an application from Google Playstore. Open their website and find medicines you want to order. Keep selecting Add to Cart option as and when you find the product you want to order. When you have filled your cart with the products that you want to order, Confirm your order. Select your mode of payment. Then select the delivery slot (if available).

Another way would be, find the option “Upload Prescription” and the rest will be taken care by the pharmacy. They will deliver all the available medicines according to dosages.

20.2– How to order blood test online?

1. Choose an Online Lab – You need to identify some labs that do testing in your area. For example – DrLal path labs.
2. Open their website/ mobile application and Fill your Details. Submit your details in a simple form. It will include Patient’s basic details and then you need to select the Tests you want to get done. For eg – Hypertension test, Allergy test, etc.
3. You will probably get a Call Back to Confirm your details and selecting your time slot for sample collection.
4. Their representative will come and collect the patient’s sample.
5. Collect your Report. You can collect your report online or can pick up from their lab.

20.3 - How to order Groceries Online?

There are 2 ways in which you can order groceries – 1. On call 2. Online through an Application/website

In the first method, you need to identify the nearest grocery shops, which deliver groceries on call. Keep their contact numbers handy, or else you can easily locate them on Google maps, by typing ‘groceries store near me’. You will find a list of store according to their distances.

You need to make a call, place your order and confirm your mode of payment.

In the second method, on how to order groceries online through an application or website, you first need to identify the apps/ websites that deliver in your area.

For NCR, some good suggestions could be Grofers, Amazon pantry, Big basket, etc.

Open your browser, type name of any website that delivers in your area, eg – Big Basket. Open their website and find products you want to order.

Keep selecting- “Add to Cart” option as and when you find the product you want to order.

When you have filled your cart with the products that you want to order,

Confirm your order.

Select your mode of payment.

Then select the delivery slot (if available).
CV Making and Interview Preparation:

21.1 - What is a CV and what is it used for?

The main purpose of your CV is to summarize about yourself to a potential employer, therefore there are few key information that you need to include. Most CVs include the following information as explained below:

1. Basic details - Name, address and contact details (including your contact number and email id)
2. Academic history
3. Professional experience
4. Qualifications and skills
5. Personal information (optional)
6. Hobbies and interests (optional)
7. Extra information (optional)

As this is your first CV, you should aim to fill one side of A4, but no more than two pages. No employer has time to go through little details, that is what resumes are for.

1. Include your contact information. This includes your full name, phone number and email address. Including your physical address.
2. Detail your academic history in reverse-chronological order. This can include your academic information in reverse order. You should include your highest degree first, following with lower ones. Eg – Post graduation, Graduation, Schooling (mention class 12th, then class 10th along with the Board of your examination) All the data should include the timeline, i.e. – the year in which completed.
3. Record your professional experience. List the companies or organizations you've worked with before, job title and dates employed starting with your most recent job. Mention your job duties, experience gained and achievements. If you do not have any past experience, you can mention – Fresher.
4. Include relevant skills and qualifications. This can be in a separate skills section. Read the job description to highlight the most important skills employers are looking for. These can include both hard and soft skills that make you the best candidate for the job. It is best to highlight the skills that employers are looking for. Eg – You should highlight all your healthcare related past experiences/ skills/ certifications. And you may neglect the others, which the employer is not looking for.
5. Personal information. In this column you may include any personal information you want to add. This column is optional.
6. Hobbies and interests (optional). In this column you may add any relevant interests or hobbies you have. This column is also optional.

Finally don’t forget to Check Your Spellings:

It is extremely important to ensure everything on your first CV is spelt correctly and there are no spelling errors. Employers have applications and will see any spelling and grammar mistakes as a way of differentiating between candidates; therefore it is important your CV is error-free. Use spelling and grammar checkers or ask someone else to proof-read it for you.
RESUME (Sample)

Name - XYZ
Address – ABC Colony,
U.P. – 201301
Mobile number – 9*********
Email id – samplecv@gmail.com

OBJECTIVE:
To work in challenging atmosphere so that I can apply and grow my skills and talent that would mutually beneficial to my organization and me.

ACADEMIC EDUCATION:
- 10th Passed from XYZ Board in xyz year
- 12th Passed from XYZ Board in xyz year
- GCA Certificate (Healthcare Assistant) – American India Foundation

STRENGTH:
- Polite, Hard Working
- Availability to learn new things.

WORK EXPERIENCE:
- One month internship – XYZ Hospital.
- Responsibilities –
  i. BP, Pulse checkup
  ii. Ryle’s tube
  iii. Blood glucose checkup
  iv. Bed pan
  v. Sponge bath
  vi. Dressing of patient

PERSONAL DETAILS:
Father’s Name :
Gender :
Marital Status :
Nationality : Indian
Date of Birth :
Language known : Hindi, English

DECLARATION:
I hereby declare that the above written information is true and correct to the best of my knowledge and nothing has been cancelled therefore.

Date...
Place...
(Your Name & Signature)
21.2 Interview

TYPES OF INTERVIEWS
There are several different types of interview:

Telephone - Some graduate employers use an initial telephone interview to eliminate unsuitable candidates. Successful applicants are usually then invited to a face-to-face interview or an assessment center. Telephone interviews usually last for around 30 minutes.

Video - An alternative to the traditional telephone interview, some organisations, particularly those recruiting in sales, media and marketing, will screen candidates via Skype, Face Time or YouTube. Video interviews usually last for around 30 minutes. Take a look at 5 steps to a successful video interview for advice.

Face-to-face - The most common type of interview, face-to-face encounters can take place with either one interviewer or, more commonly, a panel. In some rare cases, you may interview alongside other candidates and questioning can either be strengths-based or competency-based. Face-to-face interviews usually last for between one and two hours.

21.3 - Interview Preparation

Before the interview
Regardless of the type of interview you’re preparing for, doing plenty of research and planning is key. Generally, you should:
Consider how you’ll explain problematic aspects of your career, such as gaps in your work history.
Identify the skills, interests and experiences that the organisation is looking for by looking at its website and social media channels.
Plan your journey in advance, aiming to arrive ten minutes before your interview is scheduled and ideally completing a 'dry run' beforehand.
Prepare answers to common interview questions, as well as your own questions to ask at the interview.
Find out about the people who’ll interview you.
Research the issues, trends and opportunities affecting the organisation and the wider job sector.
On the night before your interview, avoid alcohol, prepare your outfit and get plenty of sleep.

On the morning of your interview, eat a healthy breakfast and don’t consume too much caffeine. You can combat nerves by exercising - if you have time, of course - as this creates feelings of wellbeing.

What to take in an interview?
- a bottle of water
- a pen and notepad
- money
- photo ID (e.g. your aadhar card, passport or driving license)
- the job description and person specification
- your academic certificates and work examples
- your CV, application form and interview invitation.
What to wear to an interview?

The typical interview dress code is usually fairly straightforward for men: a dark suit and tie combination is the safest option. However, things are slightly more open for women. You could wear a dress, trouser suit, or a skirt and blouse; black, navy or brown are the safest colours.

You should also:
- wash and iron your outfit and Apron.
- cut and clean your fingernails
- tidily arrange your hair
- Wear Plain formal clothes
- Wear Apron.
- Wear Identity card if you have any.
- avoid wearing too much jewellery or make-up
- polish your shoes
- ensure that any handbag/File you take is smart

4 ways to make a good impression in interview-

Winning interview techniques include:

1. **Positivity** - Be well-mannered with any staff you meet before or after the interview and, if you’re feeling particularly nervous, remind yourself that the very worst thing that could happen is you simply not getting the job. During the interview, avoid talking about any personal problems unless completely necessary, and never badmouth your previous employers.

2. **Body language** - Give a firm handshake to your interviewer(s) before and after the session. Once you’re seated, sit naturally without slouching in your chair or leaning on the desk. Throughout the interview, remember to smile frequently and retain eye contact.

3. **Clarity** - Answer all questions clearly and concisely, evidencing your most relevant skills, experiences and achievements. It’s perfectly acceptable to pause before answering a difficult question to give yourself thinking time, or asking for clarification if, at first, you’re unsure what the question means. When answering, don’t speak too quickly.

4. **Enthusiasm** - It’s important that you allow your personality to shine throughout, as well as ask thought-provoking questions at appropriate moments. Both of these strategies will demonstrate that you’re genuinely interested in the role and listening closely to the interviewer.

After the interview

When leaving the organization, let the interviewer know that you’re available to answer any follow-up questions. If you feel things went particularly well, you could email the interviewer the next day, thanking them for their time.

In most cases, the organization will now have enough evidence to make their decision. In some cases, however, you may be asked to attend a second interview, which aims to more closely scrutinize what you and any other remaining candidates can bring to the role. Prepare for your second interview just like your first, but you should also:

1. Request feedback from your first interview, before addressing anything that caused you difficulty.

2. Research the organization in even greater detail than for the first interview, preparing examples that demonstrate how you can benefit the organization.

Don’t worry if you don’t get the job. Simply ask the recruiter for feedback, and follow these tips on how to respond to job rejection.
Important is to practice job interviews:

Most university careers and employability services can help you to practice your interview technique. However, alternative methods of preparation include:

1. Treating formal scenarios, such as a role play, with the same professionalism as you’d treat a genuine interview.
2. Scripting and practicing answers to common interview questions with someone you trust, perhaps even recording yourself and reviewing your performance.
21.4 - Questions asked in Geriatric Care Job:

Being a healthcare professional, you need to be thorough with all the topics taught in class. Before going for the interview, you must go through your handmade notes that you must’ve made in class. Along with the theoretical part and definitions, you also must be thorough with their practical usage.

Questions like the following can be asked in the interview –

1. What are the steps involved in sponge bath?
2. How to do bed making?
3. How are bed sores managed?
4. How is oral feeding done?
5. What is Ryle’s- tube feeding?
6. Toilet training
7. Basics of First Aid