ENGLISH FOR NURSING.
SELF-STUDY GUIDE
FOR MASTER'S DEGREE STUDENTS

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
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ПЕРЕДМОВА

Для майбутнього медичного працівника необхідно бути спроможним застосовувати англійську мову за професійним спрямуванням для ознайомлення з фаховою інформацією у своїй професійній галузі.

Актуальність даного видання визначена необхідністю матеріалів для самостійної роботи з англійської мови за професійним спрямуванням та їх відсутністю для студентів магістрантів фаху «Медсестринство». Текстовий матеріал даного видання відібраний з автентичних джерел професійної літератури та відповідає потребам даного контингенту в опануванні англійської мови за професійним спрямуванням. Визначені тексти є примірником язикового матеріалу та не являються навчальним матеріалом у подальшій фаховій діяльності.

Запропоновані завдання до самостійної роботи з англійської мови для підготовки магістрантів фаху «Медсестринство» мають за мету формування навичок роботи з англомовною літературою при підготовці медсестер у магістратурі та формування у студентів фаху іншомовної професійної компетенції.

Навички читання на іноземній мові є запорукою професійного зростання. У зв'язку з великою кількістю доступної інформації, необхідно мати навички швидкого пошуку важливої інформації (пошукове та оглядове читання) і розуміння головних ідей тексту (ознайомлювальне читання).

Це видання складається з шістнадцяти розділів. Кожен з них містить текст з наукової або навчальної літератури для читання та вправу, яка допомагає формувати навички пошуку та обробки інформації. Тематика текстів охоплює всі необхідні теми, а їх відбір здійснено та скорочено з урахуванням вимог методики викладання іноземних мов. Видання розраховано на студентів, які володіють знаннями англійської мови й мовленнєвими навичками на рівні B1+.

Завдання до самостійної роботи рекомендовані для позааудиторної роботи студентів при підготовці у магістратурі з фаху «Медсестринство». Також посібник може бути застосований для проведення занять з фахівцями, зацікавленими в підвищенні рівня володіння професійною англійською мовою.

UNIT 1. NURSING IN DISORDERS OF THE REPRODUCTIVE SYSTEM

1. Read the text. Write out new words and learn them.

NURSING PROCESS FOR A PATIENT WITH A DISORDER OF THE REPRODUCTIVE SYSTEM

The patient with a disorder of the reproductive system presents some special concerns for the nurse. In many ways a human being is defined by his sex. The normal functioning of the reproductive system gives constant reassurance of a person's essential maleness or femaleness. The distortion or interruption of these processes may prove very disturbing to the individual and family.

The person may experience problems in relation to his or her self-image and have fears about future sexual performance and attractiveness.

The person may fear loss of reproductive function. The ability to reproduce is seen by many as a criterion of usefulness and sexuality. The loss of function may be followed by feelings of uselessness or of being only half a person.

Also, most patients have been culturally conditioned to the idea that these areas of the body should not be discussed, much less exposed, in examination or discussion. Such experiences may disturb the individual and produce shame that may be enhanced by lack of privacy and exposure of the body in examinations or during care. Other patients may feel guilt over their illness. Venereal disease, abortion and cancer arouse guilt feelings in certain individuals which may be expressed as a feeling of 'being punished for past deeds'.

Nursing intervention. The nurse should:

1. Assess the degree of threat posed by loss of function or body parts to the individual and plan, give and evaluate nursing care for that individual based on the assessment.
2. Give physical nursing care which:

a. Promotes feelings of dignity, self-worth and attractiveness by attention to personal hygiene and grooming;

b. Promotes the return of health, control over body functions and independence.

3. Reduce fear and guilt by:

a. Acknowledging and discussing feelings;

b. Anticipating the need for explanations and interpretations;

c. Clarifying and correcting misinformation about causes of illness, physiology and the consequences, if any, of treatment on present function;

d. Maintaining a confident, non-judgmental approach to the patient;

e. Assisting in acknowledging the loss, if any

f. Obtaining appropriate additional sources of spiritual or emotional help for the patient.

2. Answer the questions:

1. What does the normal functioning of the reproductive system provide the patient with?
2. What may prove very disturbing to the individual and family?
3. What problems may the person experience?
4. What idea have most patients been culturally conditioned to?
5. What arouses guilt feelings in certain individuals?
6. What is seen by many as a criterion of usefulness and sexuality?
7. What basic nursing process should a nurse provide for patients with a disorder of the reproductive system?
8. What should a nurse assess?

UNIT 2. NURSING IN DISORDERS OF THE EYE

1. Read the text. Write out new words and learn them.

MEASUREMENT OF INTRAOCULAR PRESSURE

The detection of increased intraocular pressure is important; an excessive pressure may be very painful and progressively causes permanent damage within the eye, leading to loss of vision. The pressure is measured by an instrument called a tonometer. A few drops of a local anaesthetic (e.g. amethocaine 0.5–1 %; oxybuprocaine 0.3 %) are instilled in each eye. The tonometer is then placed on the corneal surface, causing indentation; the extent of the indentation reflects the intraocular pressure. If the pressure is high, the cornea resists indentation. The calibrated scale of the tonometer records the pressure in millimeters of mercury (mmHg). The normal intraocular pressure is approximately 16–21 mmHg.

A second instrument that is now generally employed to measure the ocular tension is the applanometer. This is an electronic device which is considered to provide a more accurate measurement of the intraocular pressure. The patient with elevated intraocular pressure is at risk of serious impairment of vision due to ischaemic neuropathy.

2. Answer the questions:

1. Is the detection of increased intraocular pressure important or not?
2. What does an excessive pressure cause?
3. What is the pressure measured by?
4. What medicine is instilled in each eye?
5. Where is the tonometer placed on?
6. When does the cornea resist indentation?
7. What does the tonometer record the pressure in?
8. What is the normal intraocular pressure?

UNIT 3. NURSING IN ONCOLOGICAL DISEASE

1. Read the text. Write out new words and learn them.

TARGETED THERAPY

Targeted therapy is the foundation of precision medicine. It is a type of cancer treatment that targets the changes in cancer cells that help them grow, divide and spread. As researchers learn more about the cell changes that drive cancer, they are better able to design promising therapies that target these changes or block their effects.

Types of Targeted Therapy:

Most targeted therapies are either small-molecule drugs or monoclonal antibodies. Small-molecule drugs are small enough to enter cells easily, so they are used for targets that are inside cells.

Monoclonal antibodies (therapeutic antibodies) are proteins and produced in the lab. These proteins are designed to attach to specific targets found on cancer cells. Some monoclonal antibodies mark cancer cells so that they will be better seen and destroyed by the immune system. Other monoclonal antibodies directly stop cancer cells from growing or cause them to self-destruct. Still others carry toxins to cancer cells are drugs that are not able to enter cells easily. Instead, they attach to specific targets on the outer surface of cancer cells.

For some types of cancer, most patients with that cancer will have a target for a certain drug, so they can be treated with that drug. But, most of the time, your tumour will need to be tested to see if it contains targets for which we have drugs.

To have your tumor tested for targets, you may need to have a biopsy. A biopsy is a procedure in which your doctor removes a piece of the tumor for testing. There are some risks to having a biopsy. These risks vary depending on the size of the tumor and where it is located. Your doctor will explain the risks of having a biopsy for your type of tumor.

Most targeted therapies help treat cancer by interfering with specific proteins that help tumors grow and spread throughout the body. They treat cancer in many different ways.

Types of Targeted Therapy can:

- Help the immune system destroy cancer cells.
- Stop cancer cells from growing.
- Stop signals that help form blood vessels.
- Deliver cell-killing substances to cancer cells.

From: https://www.cancer.gov/about-cancer/treatment/types/targeted-therapies

2. Mark the sentences T (true) or F (false):

1. Targeted therapy is aimed at alterations in cancerous cells.
2. Efforts are being made to develop effective treatment techniques that can prevent alterations in cellular structure.
3. Small molecules in medicines cannot easily enter cells because of their size.
4. Monoclonal antibodies are not proteins.

5. These proteins are designed to attach to particular targets found on cancer cells for the purpose of binding.
6. Monoclonal antibodies help identify and mark cancerous cells, what makes them more visible to the immune system for destruction.
7. All monoclonal antibodies do not have the ability to inhibit the growth of cancerous cells.
8. Depending on the tumor size, the dangers involved with having a biopsy may differ.

UNIT 4. NURSING IN DISORDERS OF THE ALIMENTARY CANAL

1. Read the text. Write out new words and learn them.

NURSING CARE IN OESOPHAGOSCOPY AND GASTROSCOPY

Preparation for either of these diagnostic procedures should begin with an explanation to the patient what to expect. The doctor may have described the examination and its values, but the patient will most likely still have questions. The nurse should have sufficient understanding of the procedure to be able to answer the patient's questions judiciously.

The patient is advised that he will be taken to the endoscopy unit or to the operating theatre for the examination. A written consent for the procedure is obtained. The oesophagus and the stomach must be completely empty. No food or fluid is given for 6–8 hours before the procedure. In gastroscopy, the doctor may request a gastric lavage to be done several hours before the examination in patients in whom some pyloric obstruction is suspected. The teeth are cleaned and a mouthwash provided before the procedure; dentures and jewellery are removed and kept safe.

A sedative such as pethidine may be administered 30–60 minutes before the scheduled time or an analgesic may be administered intravenously during the procedure. The patient empties his bladder before leaving his room to avoid such need during the procedure.

The pharyngeal area is sprayed with a local anaesthetic before the gastroscope or oesophagoscope is introduced. A general anaesthetic may be given in the case of a child or, rarely, it may be used for a nervous adult in order to get better relaxation. A nurse remains beside the patient to give reassurance and support during the procedure and to assist with positioning. The patient is unable to speak when the endoscope is in position. In oesophagoscopy, the patient's head and shoulders are extended over the head of the table. In gastroscopy, a lateral position may be used.

Following the examination, the patient is allowed to rest. All food and fluids are withheld until the effect of the local anaesthetic has worn off and the gag reflex returns (usually 4–6 hours). Before giving any fluid, the reflex may be tested by gently touching the back of the throat with an applicator or spoon. The patient may complain of a sore throat or soreness in midchest. Warm fluids

may be soothing and may provide some relief. Any expectoration or vomiting of blood or severe pain should be reported promptly to the doctor.

Walsh. M., Crumbie. A. & Watson J.E., J.A. (2007) Watson's Clinical Nursing And Related Sciences (7th Ed.) Edinburgh; New York: Bailliere Tindall/Elsevier.

2. Answer the questions:

1. How does the preparation for oesophagoscopy and gastroscopy begin?
2. Will the patient have questions after the doctor's examination?
3. Is a patient informed that he will be taken to the endoscopy department or to the operating theatre for the examination?
4. What organs must be entirely free of food?
5. How long may pethidine be administered before the scheduled time?
6. What area is sprayed with a local anaesthetic before the gastroscope or oesophagoscope is introduced?
7. How many hours does the gag reflex return in?
8. What should be said promptly to the physician about?

UNIT 5. NURSING IN SKIN DISORDERS AND BURNS

1. Read the text. Write out new words and learn them.

WOUND CARE

Infection is a serious hazard in severe burns and is the major complication in burned patients. The skin, which is damaged or destroyed, is the normal protective barrier against environmental organisms as well as those commonly found on the skin, in hair follicles and in sweat and sebaceous ducts. Thrombosis and damage of local vessels and stasis of circulation in the burn area create an environment for bacterial growth. At the same time the patient's immune system is depressed.

Various forms of local treatment are used to prevent further wound contamination and tissue destruction, suppress the growth of bacteria in the area, and promote separation of the devitalized tissue and its replacement with skin. Staff members providing direct care wear sterile gowns, caps, mask and gloves. Placement of the patient receives consideration; if there is no special burn care unit the patient is placed in a single room where protective isolation technique can be used to reduce the risk of infection. If there is a burn care ward in the hospital or a regional burn centre, the patient is transferred there from the accident and emergency department.

Initially, the burn is cleansed of dirt, foreign substances and detached epithelium, using gauze and a mild soapy solution, water or normal saline. The temperature of the burn bath solution is kept at 37–38 °C (99 °F) to approximate body temperature. If a hydrotherapy bath is not available, the cleansing is done on the stretcher or in the patient's bed. The entire burned area is bathed during the admission procedure. Loose, sloughing skin and debris are removed with sterile forceps and the doctor removes the skin from blisters. The cleansing must be

very gentle to avoid damage of exposed viable tissue and the area is rinsed with generous amounts of water or saline.

Following the cleansing, the patient is placed on a fresh sterile sheet and an estimate is made of the extent and depth of the burns.

Superficial, partial-thickness burns may be left exposed or may receive an application of an ointment. The ointment frequently contains a local anaesthetic for the relief of pain; an example is cinchocaine hydrocloride ointment (Nupercain). Cool moist applications for the first few hours will provide relief of the pain of superficial burns.

In *deep, partial-thickness burns*, opinion differs as to whether blisters are better left intact or should be opened and the overlying devitalized tissue removed. It is suggested that the dead tissue and the fluid encourage the development of infection. There is a consensus, however, that blisters on the palms of the hands, where the skin is thick and not easily ruptured, should be left intact.

The more common, current methods of local treatment of *major* and *full-thickness burns* include open treatment, closed treatment methods and skin grafting.

2. Answer the questions:

1. What is the main complication in burned patients?
2. What creates an environment for bacterial growth?
3. What are the various forms of local treatment for burns used for?
4. What is the specific outfit worn by staff members providing hands-on care to patients in the burn unit?
5. What strategy is implemented to decrease the chance of possible infection?
6. How is the burn wound treated?
7. What applications provide pain relief for superficial burns?
8. What are the modern ways of localized therapy of major, severe and deep burns?

UNIT 6. NURSING IN DISORDERS OF THE NERVOUS SYSTEM

1. Read the text. Write out new words and learn them.

THE NERVOUS SYSTEM OF THE HUMAN BODY

The brain is an amazing three-pound organ that controls all functions of the body, interprets information from the outside world, and embodies the essence of the mind and soul. Intelligence, creativity, emotion, and memory are a few of the many things governed by the brain. Protected within the skull, the brain is composed of the cerebrum, cerebellum, and brainstem.

The brain receives information through our five senses: sight, smell, touch, taste, and hearing – often many at one time. It assembles the messages in a way that has meaning for us and can store that information in our memory.

The central nervous system (CNS) is composed of the brain and spinal cord. The peripheral nervous system (PNS) is composed of spinal nerves that branch from the spinal cord and cranial nerves that branch from the brain. The brain is composed of the cerebrum, cerebellum, brainstem and deep structures.

Cerebrum: is the largest part of the brain and is composed of right and left hemispheres. It performs higher functions like interpreting touch, vision and hearing, as well as speech, reasoning, emotions, learning, and fine control of movement.

Cerebellum: is located under the cerebrum. Its function is to coordinate muscle movements, maintain posture, and balance.

Brain stem: acts as a relay center connecting the cerebrum and cerebellum to the spinal cord. It performs many automatic functions such as breathing, heart rate, body temperature, wake and sleep cycles, digestion, sneezing, coughing, vomiting, and swallowing.

Hypothalamus: is located in the floor of the third ventricle and is the master control of the autonomic system. It plays a role in controlling behaviors such as hunger, thirst, sleep, and sexual response. It also regulates body temperature, blood pressure, emotions, and secretion of hormones.

Pituitary gland: lies in a small pocket of bone at the skull base called the sella turcica. The pituitary gland is connected to the hypothalamus of the brain by the pituitary stalk. Known as the "master gland," it controls other endocrine glands in the body. It secretes hormones that control sexual development, promote bone and muscle growth, and respond to stress.

Pineal gland: is located behind the third ventricle. It helps regulate the body's internal clock and circadian rhythms by secreting melatonin. It has some role in sexual development.

Thalamus: serves as a relay station for almost all information that comes and goes to the cortex. It plays a role in pain sensation, attention, alertness and memory.

From: http://mayfieldclinic.com/pe-anatbrain.htm

2. Which of the following is not true?

1. The human brain regulates only some functions of the human organism.
2. The cranium protects the human brain from traumas.
3. The spinal cord and cranial nerves make up the PNS.
4. The cerebellum controls eyesight, speech and hearing.
5. The brain stem is responsible only for breathing, body temperature, and digestion.
6. Appetite, sleep, sexual reaction and thirst are managed by the hypothalamus.
7. The hypophysis produces hormones that regulate sexual development.
8. The pineal gland releases melanin.

UNIT 7. NURSING IN BLOOD DISEASES

1. Fill in the gaps in the text (1–6) using the following sentences (A–F).

A) Blood disorders can also affect the liquid portion of blood, called plasma. Treatments and prognosis for blood diseases vary, depending on the blood condition and its severity.

B) Multiple myeloma has no cure, but stem cell transplant and/or chemotherapy can allow many people to live for years with the condition.

C) Besides anemia, nerve damage (neuropathy) can eventually result. High doses of B12 prevent long-term problems.

D) is often closely associated with oncology nursing, and some nurses will help patients with pain management if their cancer is particularly aggressive.

E) They may also assist with blood transfusions, blood tests, research and chemotherapy.

F) Chemotherapy and/or cell transplantation (bone marrow transplant) can be used to treat leukemia, and may result in a cure.

BLOOD DISORDERS

Hematology nurses are specially trained to provide nursing care for patients with blood diseases or disorders. Some of the more commonly-known blood diseases and disorders a hematology nurse may encounter include: leukemia, lymphoma, sickle cell anemia and hemophilia. Hematology nurses initiate a plan of care to manage symptoms that result from such blood problems.

Hematology nursing 1)_____ Hematology nurses may work with adults only or specialize in working only with children. Their responsibilities include: taking medical histories, performing, working with physicians to diagnose various blood diseases and disorders. Hematology nurses also educate patients and their families on how to live with and manage their blood disease. 2)_____ Advanced practice hematology nurses have some prescriptive authority and can also order diagnostic lab work done.

Blood disorders can affect any of the three main components of blood: red blood cells, which carry oxygen to the body's tissues; white blood cells, which fight infections; platelets, which help blood to clot. 3)_____Blood disorders that affect red blood cells include:

1. *Anemia.* People with anemia have a low number of red blood cells. Mild anemia often causes no symptoms. More severe anemia can cause fatigue, pale skin, and shortness of breath with exertion.

2. *Pernicious anemia* (B12 deficiency): A condition that prevents the body from absorbing enough B12 in the diet. This can be caused by a weakened stomach lining or an autoimmune condition. 4)_____.

3. *Aplastic anemia*: In people with aplastic anemia, the bone marrow does not produce enough blood cells, including red blood cells. This can be caused by a host of conditions, including hepatitis, Epstein-Barr, or HIV – to the side effect of a drug, to chemotherapy medications, to pregnancy. Medications, blood transfusions, and even a bone marrow transplant may be required to treat aplastic anemia.

Blood disorders that affect white blood cells include:

Leukemia : A form of blood cancer in which a white blood cell becomes malignant and multiplies inside bone marrow. Leukemia may be acute (rapid and severe) or chronic (slowly progressing). 5)_____.

Multiple myeloma: A blood cancer in which a white blood cell called a plasma cell becomes malignant. The plasma cells multiply and release damaging substances that eventually cause organ damage. 6)_____.

Blood disorders that affect the platelets include:

Thrombocytopenia: A low number of platelets in the blood; numerous conditions cause thrombocytopenia, but most do not result in abnormal bleeding.

Idiopathic thrombocytopenic purpura: A condition causing a persistently low number of platelets in the blood, due to an unknown cause; usually, there are no symptoms, yet abnormal bruising, small red spots on the skin (petechiae), or abnormal bleeding can result.

Thrombotic thrombocytopenic purpura: A rare blood disorder causing small blood clots to form in blood vessels throughout the body; platelets are used up in the process, causing a low platelet count.

From: https://www.webmd.com/cancer/lymphoma/blood-disorder-types-and-treatment

UNIT 8. Nursing in Cardiovascular Disease

1. Read the text. Write out names of cardiovascular diseases and remember them.

CARDIOVASCULAR DISEASES

Cardiovascular Disease refers to any disease that involves the heart and the blood vessels. Cardiovascular diseases include: Aneurysm, Angina, Arrhythmia, Atherosclerosis, Cardiomyopathy, Cerebrovascular Accidents such as Stroke, Cerebrovascular Disease, Congenital Heart Disease and many others. *Hypertension, Diabetes, Overweight/Obesity, Smoking and Physical Inactivity* are major contributing factors for cardiovascular diseases.

Cardiovascular Nurses play a key role in the evaluation of Cardiovascular Status, Monitoring the Hemodynamic Functions and Disease Management. Nursing interventions have been shown to reduce patient stress. A randomized study of thirty patients hospitalized with Acute Myocardial Infarction to determine the effectiveness of two different nursing interventions on reducing the stress associated with CCU (cardiac care unit) has shown that nurse interventions reduce patient stress and cardiovascular complication. Recent research findings suggest that morbidity and mortality in cardiac patients can be improved with a comprehensive treatment plan which has a Nurse Managed Stress Reduction Plan. Randomized controlled trials have also demonstrated the benefit of Nurse-run Clinics for secondary prevention of Coronary Heart Disease. Studies have shown that the Advanced Practice Nurse is in an ideal position to assess predictors of noncompliance as well as to implement interventions to enhance patient compliance in Cardiovascular care. Nurse-Provided or Nurse-Coordinated Care Management programs using an integrated or multifactor approach have been shown to be highly effective in reducing morbidity and mortality of high-risk patients.

Cardiovascular Nurses play a very important role at different levels, visual, the technical level, where the nurses carry out diagnostic examinations and risk assessments; psychological level where the nurse informs, acts as a health counsellor and helps in the patient self-care process. A study to observe secondary prevention practice in a cardiovascular department in a sample of two hundred and twenty patients discharged from the Intensive Coronary Care Unit, Cardiac

Surgery Unit and Vascular Surgery Unit has shown that nurses play a vital role in the implementation of guidelines, risk assessment, drug treatment and effective patient education.

Nurses have been shown to play a central role in vascular risk management with a self-management approach for patients with chronic vascular diseases in novel Vascular Prevention Clinics, where, nursing care delivered includes medical treatment of vascular risks like hypertension, hypercholesterolemia, hyperglycemia and hyperhomocystinemia along with self-management strategies like changes in diet, body weight, smoking habits and level of exercise to achieve vascular risk reduction. A study to identify and explore the factors that enhance and retard general practice nurse's role in Cardiovascular Disease Management has shown legal implications, lack of space and general practitioner attitudes as significant barriers to Cardiovascular Nurse Practice. Collaboration with the general practitioner and access to training have been shown to enhance their practice role.

From: https://www.asrn.org/journal-advanced-practice-nursing/1103-cardiovascular-nurse-care.html

2. Answer the questions:

1. What significant work do cardiovascular nurses perform?
2. What reduces patient stress?
3. What have recent research discovered?
4. What programs are used to treat patients with cardiovascular diseases?
5. How do cardiovascular nurses contribute at various levels?
6. What are the specific mental or emotional duties that are performed by nurses?
7. What measures do nurses take to carry out secondary prevention of cardiovascular diseases?

UNIT 9. NURSING IN SHOCK

1. Read the text. Write out new words and learn them.

SHOCK CAUSES

The blood stream contains the blood cells (red, white, and platelets), plasma (which is more than 90% water), and many important proteins and chemicals. Loss of body water or dehydration can cause shock.

The blood vessels may not be able to maintain enough pressure within their walls to allow blood to be pumped to the rest of the body. Normally, blood vessel walls have tension on them to allow blood to be pumped against gravity to areas above the level of the heart. This tension is under the control of the unconscious central nervous system, balanced between the action of two chemicals, adrenaline (epinephrine) and acetylcholine. If the adrenaline system fails, then the blood vessel walls dilate and blood pools in the parts of the body closest to the ground (lower extremities), and may have a difficult time returning to heart to be pumped around the body. Since one of the steps in the cascade of events causing shock is damage to blood vessel walls, this loss of

integrity can cause blood vessels to leak fluid, leading to dehydration which initiates a vicious circle of worsening shock.

*Hypovolemic Shock.*There needs to be enough red blood cells and water in the blood for the heart to push the fluids around within the blood vessels. When the body becomes dehydrated, there may be enough red blood cells, but the total volume of fluid is decreased, and pressure within the system decreases. Cardiac output is the amount of blood that the heart can pump out in one minute. It is calculated as the stroke volume (how much blood each heart beat can push out) multiplied by the heart rate (how fast the heart beats each minute). If there is less blood in the system to be pumped, the heart speeds up to try to keep its output steady.

Ultimately in hypovolemic shock, the patient cannot replace the amount of fluid that was lost by drinking enough water, and the body is unable to maintain blood pressure and cardiac output. In all shock states, when cells start to malfunction waste products build up, a downward spiral of cell death begins, increased acidosis occurs, and a worsening body environment leads to further cell death - and ultimately organ failure.

*Hemorrhagic Shock.*A subset of hypovolemic shock occurs when there is significant bleeding that occurs relatively quickly. Trauma is the most common example of bleeding or hemorrhage, but bleeding can occur from medical conditions such as:

- Bleeding from the gastrointestinal tract is common; examples include stomach or duodenal ulcers, colon cancers or diverticulitis.
- In women, excessive bleeding can occur from the uterus.
- People with cancers or leukemia have the potential to bleed spontaneously from a variety of sources if their liver does not make enough clotting factors.
- Patients who are taking blood thinners (anticoagulant medications) can bleed excessively as well.

From: https://mesadeestudo.com/shock-occurs-when-there-is-a-diminished-amount-of-blood-available-to-the-circulatory-system
https://www.emedicinehealth.com/shock/article_em.htm

2. Mark the sentences T (true) or F (false):

1. Excessive water in the organism can cause shock.
2. The pumping of blood above the heart's level is done against gravity
3. The central nervous system, which operates unconsciously, regulates the pressure in blood vessels.
4. Loss of integrity of blood vessels contributes to shock.
5. In case of hypovolemic shock, the patient can replenish the amount of fluid with frequent drinking.
6. Hemorrhagic shock can occur with a slight loss of blood volume.
7. Bleeding in the gastrointestinal region is a prevalent issue.
8. Hemorrhage or bleeding is not primarily caused by trauma.

UNIT 10. NURSING IN RESPIRATORY DISORDERS

1. Read the text. Write out new words and learn them.

RESPIRATORY SYSTEM

The respiratory system, which includes air passages, pulmonary vessels, the lungs, and breathing muscles, aids the body in the exchange of gases between the air and blood, and between the blood and the body's billions of cells. Most of the organs of the respiratory system help to distribute air, but only the tiny, grape-like alveoli and the alveolar ducts are responsible for actual gas exchange. In addition to air distribution and gas exchange, the respiratory system filters, warms, and humidifies the air you breathe. Organs in the respiratory system also play a role in speech and the sense of smell. The respiratory system also helps the body maintain homeostasis, or balance among the many elements of the body's internal environment.

The respiratory system is divided into two main components:

1) *Upper respiratory tract* is composed of the nose, the pharynx, and the larynx. The organs of the upper respiratory tract are located outside the chest cavity:

- Nasal cavity;
- Sinuses;
- Pharynx.
- Larynx.

2) Lower respiratory tract is composed of the trachea, the lungs, and all segments of the bronchial tree (including the alveoli), the organs of the lower respiratory tract are located inside the chest cavity:

- Trachea;
- Lungs;
- Bronchi;
- Diaphragm.

Problems include respiratory arrest and insufficiency, atelectasis, bronchial obstruction, and pneumonia, the major contributors to mortality and morbidity after SCI, especially during the first year.

Causes include extended immobilization and bed rest, paralysis of some or all of the respiratory musculature, ineffective cough, possible surgical interventions, pre-existing pulmonary disease, concurrent chest trauma, anemia, gastric distention, paralytic ileus, and especially, ascending edema

Assessments include determining baseline respiratory status (assess patient's ability to cough and deep breath effectively, auscultate the chest, and note the breathing pattern); monitor chest x-rays, blood gas levels, CBC, sputum cultures, and pulmonary function tests.

Nursing Interventions include intubation and ventilator support, as well as supplementary oxygen and consultation with pulmonologist, if necessary, and the respiratory regimen of chest percussion, respiratory toilet, suctioning, and deep breathing if on a ventilator; assist with cough as needed; provide tracheostomy

care every 4 hours, chest physical therapy and deep breathing exercises every 2–4 hours, IPPB every 4 hours, and use of incentive spirometer every 4 hours.

From: https://nursinganswers.net/reflections/acute-on-chronic-respiratory-failure-with-hypoxia.php
http://calder.med.miami.edu/providers/NURSING/rescar.html

2. Answer the questions:

1. What does the respiratory system include?
2. What is the primary function of respiratory system organs?
3. What additional role do the organs in the respiratory system perform?
4. How many components are there in the respiratory system?
5. What is the localization of the organs of the upper respiratory tract?
6. What does lower respiratory tract consist of?
7. What do Nursing Interventions consist of?
8. What does the word *assessments* mean in this text?

UNIT 11. NURSING IN DISORDERS OF THE LIVER AND BILIARY TRACT

1. Read the text. Write out new words and learn them.

NURSING CARE OF PATIENTS WITH EXTRAHEPATIC DISORDERS

Surgery is not usually done during an acute attack of cholecystitis or cholelithiasis unless the signs and symptoms are unremitting or progressive. The patient is kept at rest, and food is withheld. If there is vomiting, a nasogastric tube is passed and regular aspiration is performed. The temperature, pulse and respirations are recorded regularly; a sudden elevation is reported promptly. The patient is checked for signs of obstructive jaundice and abdominal distension.

When the vomiting is controlled and the nasogastric tube removed, oral fluids are given and graduated, as tolerated, to a light, bland, low-fat diet. If the patient is obese, the caloric intake is limited to approximately 1000 kcal daily.

PREOPERATIVE CARE

Preoperative preparation for surgery on the extrahepatic biliary system includes close observation for jaundice and the administration of vitamin K to raise the prothrombin level. Special attention is given to having the patient understand the importance of the frequent coughing and deep breathing that he will be required to carry out after the operation.

POSTOPERATIVE CARE

Close observation for bleeding is necessary, since low prothrombin levels may still exist. The drainage tube (T tube) that is inserted in the common bile duct is generally clamped during the transfer from the operating room; after the patient is transferred, it is immediately attached to a drainage receptacle. The tubing leading to the receptacle is secured to the dressing and lower bed linen and should have sufficient slack to prevent traction and dislodgement. The patient is advised as to how to turn to avoid a pull on the tube and of the need to be sure that it is not kinked or compressed. The character and daily amount of

bile drainage are recorded. If there is a prolonged loss of bile, it may be given back to the patient through a nasogastric tube for the purpose of promoting more normal digestion and absorption in the intestine.

The dressing is checked frequently for possible bleeding or bile leakage. After a few days, the T tube is clamped for stated intervals and is removed when the surgeon considers the common bile duct is patent. Following removal of the tube, the dressing is observed for bile seepage. If the dressing is soiled with bile, it is changed frequently, the skin and wound are cleansed, and petroleum jelly gauze, an ointment or powder is applied to prevent excoriation and maceration of the skin by the strongly alkaline bile. The patient is also observed for signs of peritonitis; an elevation of temperature, abdominal pain, distension and rigidity are reported at once.

2. Answer the questions:

1. What indicators of the patient are constantly recorded during surgery?
2. What is the patient diet like?
3. What does preoperative preparation for surgery on the extrahepatic biliary system include?
4. Where is the drainage tube inserted in?
5. What should the patient do to avoid a pull on the tube?
6. What may be done if there is a prolonged loss of bile?
7. What are the actions of the nurse if the dressing is dirty?
8. What indicators of the patient after the operation should the nurse monitor?

UNIT 12. NURSING IN DISORDERS OF THE ENDOCRINE SYSTEM

1. Read the text. Write out new words and learn them.

NURSING IN ADRENAL SURGERY

Surgery of the adrenal glands may be done on patients with hypersecretions of hormones due to hyperplasia or tumours of one or both glands. The procedure may involve the removal of both adrenal glands (bilateral or total adrenalectomy), the removal of one gland (unilateral adrenalectomy) or resection of a part of a gland (subtotal adrenalectomy). Bilateral adrenalectomy is occasionally undertaken in patients with cancer of the breast and occasionally in those with cancer of the prostate. Malignant disease of these organs is dependent to some extent on sex hormones, and, since the adrenal cortices produce both oestrogens and androgens, their removal eliminates a source of the supporting hormones. In the case of cancer of the breast, adrenalectomy is preceded by oophorectomy (removal of the ovaries). The patient with cancer of the prostate undergoes orchidectomy (removal of the testicles) before adrenalectomy is considered.

Preoperative preparation

Blood studies are done to determine electrolyte concentrations, and corrections are made as indicated. The blood sugar level and glucose tolerance are investigated. The patient is given a high-protein diet because of the protein depletion due to

excessive glucocorticoid secretion. The blood pressure is recorded at least once daily to serve as a postoperative comparative base-line. The patient with hyperfunction of the adrenal cortices frequently has experienced hypertension for some time. Phentolamine (Rogitine) and/or phenoxybenzaiqine hydrochloride may be prescribed preoperatively to reduce vasomotor tone and hypertension because the anaesthetic and actual surgery may precipitate severe hypertension.

If both adrenal glands are to be removed, the patient and his family must understand that constant hormone replacement will be necessary for the remainder of the patient's life.

After operation, the patient's respirations tend to be shallow because the incision is close to the diaphragm. He is taught how to cough.

The surgeon's approach to the adrenal gland is usually through a high flank incision or occasionally through the abdomen. When a bilateral adrenalectomy is done, two incisions are made unless the transabdominal approach is used. The entire trunk from the nipple line down to and including the pubis is cleansed. A nasogastric tube is passed before the sedative is given on the morning of operation. This prevents postoperative vomiting and abdominal distension.

2. Mark the sentences T (true) or F (false):

1. Tumor and adrenal hyperplasia are indications for adrenalectomy.
2. Bilateral removal of the adrenal gland is sometimes performed in patients with prostate cancer.
3. The removal of adrenal glands does not completely eliminate a source of the hormones that support the body.
4. A patient with breast cancer does not undergo ovarian removal before adrenalectomy.
5. Phenoxybenzaiqine hydrochloride may be prescribed preoperatively to reduce vasomotor tone and hypertension.
6. In case of surgical removal of two adrenal glands, the patient and his family should take into account the constant replacement of hormones throughout the patient's remaining life.
7. After the operation the patient is not demonstrated how to cough.
8. When a bilateral adrenalectomy is done, one incision is made.

UNIT 13. NURSING IN DISORDERS OF THE URINARY SYSTEM

1. Read the text. Write out new words and learn them.

NURSING CARE PLANS

Urinary tract infections (UTI) are caused by pathogenic microorganisms in the urinary tract (kidney, bladder, urethra). The majority of UTIs are caused by the bacterium Escherichia coli (E. coli), normally found in the digestive system. Usually, bacteria that enter the urinary tract system are removed by the body before they can cause symptoms. But, in some cases, bacteria overcome the natural defenses of the body, therefore causes infection.

An infection in the urethra is called urethritis. A bladder infection is called cystitis. Bacteria may ascend up to the ureters to multiply and cause the infection of the kidneys (pyelonephritis).

Signs and symptoms of urinary tract infections include: fever, chills, a strong persistent urge to urinate, burning sensation when urinating, cloudy, foul-smelling urine, and pelvic pain in women.

The focus of this care plan for Urinary Tract Infections (UTI) includes relief of pain and discomfort, increased knowledge of preventive measures and treatment regimen, and absence of complications.

Here are six (6) nursing care plans (NCP) and nursing diagnosis for patients with urinary tract infections (UTI): 1) Impaired Urinary Elimination; 2) Infection; 3) Acute Pain; 4) Deficient Knowledge; 5) Disturbed Sleep Pattern; 6) Hyperthermia.

Patient will achieve normal urinary elimination pattern, as evidenced by absence sign of urinary disorders (urgency, oliguria, and dysuria).

Patient will demonstrate behavioral techniques to prevent urinary infection.

From: https://blograng.com/a-nurse-is-assessing-a-client-who-has-urosepsis
https://treatment-faq.com/uti-treatment-when-nursing

2. Answer the questions:

1. What is the source of the infection in the urinary tract (UTI)?
2. What bacteria cause most of UTIs ?
3. What is the mechanism of patient infection in UTI?
5. What are the signs and symptoms of UTI?
6. What does the focus of the UTI treatment plan include?
7. Who is more likely to have UTI?
8. What does the absence of symptoms is indicative of?

UNIT 14. NURSING IN BONE DISORDERS

1. Read the text. Write out new words and learn them.

THE BONE CARE NURSE PROJECT

The Bone Care Nurse project aims primarily to raise the awareness and create competent and specialized nurse figures, having a good understanding of the metabolic bone diseases through the organization of seminars, training courses and masters, facing across the board nursing staff belonging to different clinical Departments.

This will allow this figure to take part in nursing and in the implementation of optimal paths for education, diagnosis, treatment and rehabilitation of patients.

The Bone Care Nurse will personally organize and participate in educational campaigns addressed to the general population in order to spread the specific culture of prevention based on adequate lifestyles, early diagnosis, considering the appropriate use of modern diagnostic tools, and motivating a long-term compliance of patients when treatments are necessary.

In our metropolitan area there are specific meetings promoted by associations of osteoporotic patients, dedicated physicians and nurses specialized in the Metabolic Bone Diseases field, during which various issues are addressed on the prevention of bone fragility.

Another example is represented by "Mister bone" project aimed to implement a specific education in this health's area in Florentine primary schools. The project began in 2009 with a pilot phase involving 215 children and parents of several elementary schools in Florence. This year, the experience has been replicated in other schools in 211 children. Everything revolves around the Mister Bone comics, protagonist of the courses in the classroom through comic books, tests, games and DVDs (via web looking for the error crossword puzzles), children learn how the bone is done and especially what they must do to keep it in shape. Specific brochures have been, and will be produced and distributed.

In hospital planning, the Bone Care Nurse will be part of a team for the development and implementation of the clinical care pathways to maintain vigilance on subjects clinically at risk of OP and fragility fracture. This could happen by the use, in a specialized clinic, use of ad hoc questionnaires for the assessment of: 1) average daily calcium, phosphorus and protein food intake; 2) patients' habits of life, pointing to the risk factors favoring the development of OP (e.g., smoking, alcohol, lack or reduced physical exercise, lack or reduced sunlight exposure); 3) the adherence to the prescribed drug. The Bone Care Nurse will also provide specific informative leaflets aimed at improving lifestyles, compliance and adherence to therapy prescribed by physician. Educational meetings for both patients and families can be also organized.

These same questionnaires of the first visit will be administered again at follow-up visits. The collected information will be stored in a dedicated electronic database, subject to statistical analysis, and will provide information on both the degree of knowledge of disease by the patient at the first meeting and the changes following the intervention of the Bone Care Nurse.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3230926/

2. Mark True or False using the text above:

1. The Bone Care Nurse project aims to train nurses who can deal with different types of bone diseases.
2. The Bone Care Nurse project only organizes seminars and courses for nurses.
3. The Bone Care Nurse can help patients with education, diagnosis, treatment and rehabilitation.
4. The Bone Care Nurse does not interact with the general population.
5. The Bone Care Nurse can use modern diagnostic tools to detect bone problems.
6. The Mister Bone project is a comic book series that teaches children about bone health.
7. The Mister Bone project started in 2009 and involved 215 children in Florence.
8. The Mister Bone project has a website where children can play games and puzzles related to bones.

9. The Bone Care Nurse will work alone in the hospital setting.
10. The Bone Care Nurse will be part of a team for the development of hospital planning.

UNIT 15. NURSING IN DISORDERSOF NUTRITION AND METABOLISM

1. Read the text. Write out new words and learn them.

NURSING INTERVENTION

Prevention of overweight and control of obesity are important nursing responsibilities. Public education should begin with parents and young children to promote the development of healthy eating habits. Changing life-long eating patterns in adults who are overweight is a difficult and long-term process.

Educational programmes for the obese require a holistic approach since the individual's food intake is influenced by social, cultural, religious, economic and genetic factors which influence his self-image and life-style. Fasting is rarely used and is likely to cause complications.

1 The *knowledge* required by the individual relates to: (1) basic nutritional requirements of the body; (2) the relationship between food intake and energy output; (3) the effects of obesity on health; and (4) the role of activity and exercise in the control of weight.

2 *Approaches to reducing body fat*. Measures to prevent obesity begin with the education of parents during the prenatal period, and focus on developing healthy eating habits in infancy and childhood. Parents need help in assessing the food requirements of developing infants. Obesity in children, with the increased number of fat cells in the body, tends to perpetuate the problem throughout life.

The nurse in the community can support parents in establishing healthy eating habits by carefully monitoring energy intake, eliminating excess fat and kilocalories from the children's diet, planning for the introduction of solid foods between 4 and 6 months of age, and using cuddling and other means of comfort when trying occurs, rather than relying on food to comfort an infant.

Family participation and support are essential for the success of any weight control programme for children or adults.

Suggested approaches which may be included in an individualized plan include:

- *Self-monitoring*: the patient may prefer to keep records of food intake and daily activities and to monitor his own weight.
- *External control*: it may be more effective if a group or another person assumes responsibility for monitoring weight changes and provides positive or negative reinforcement for change, as indicated.
- *Regular eating habits* can also facilitate weight management. Specific times and places should be established for eating; the individual sits down to eat and takes time to enjoy the food.
- *Diet* is selected with guidance from health professionals to ensure that essential nutrients and fiber are included and that non-essential high energy foods are restricted.
- *Activity and exercise.*

2. Answer the questions:

1. What are important nursing responsibilities?
2. Whom should public education begin with?
3. What factors have an influence on individual's food intake?
4. Is changing life-long eating patterns in adults who are overweight an easy and short-term process?
5. What kind of activity is available for the nurse in the community to help parents?
6. Is there anything essential for the success of any control programme?
7. What is included in an individualized plan?
8. What does self-monitoring mean according to the text?

UNIT 16. NURSING IN DISORDERS OF THE EAR

1. Read the text. Write out new words and learn them.

SUGGESTIONS TO THOSE SPEAKING TO A PERSON WHO IS HARD OF HEARING

• Do not speak until you have the person's attention. The speaker's face should be in full view of the listener so that he has the opportunity to observe lip movement.

• Determine which is the better ear and go to that side if possible. Look directly at the listener.

• Speak slowly, enunciate clearly and avoid raising the pitch of voice. The volume is increased, but actual shouting is avoided. Guard against running words together. The natural form of conversation is used rather than broken statements and incomplete sentences.

• Exaggerated lip movement only confuses the listener.

• If repetition is necessary, rephrasing the communication may be helpful; remember that vowels are heard more readily than consonants.

• Patience, tact and understanding are needed. Avoid any irritation or annoyance; such reactions on the part of the speaker only discourage the listener.

• Do not prolong a conversation unnecessarily, since the listener tires under the strain.

• If a hearing aid is used, give the person time to adjust it. Do not get within 4–5 feet of the aid and use natural volume and tone.

• A misinterpretation must not be ridiculed or treated as a joke.

• If a patient is totally deaf and does not lip-read, pictures or symbols that represent objects may be helpful to orient the patient and for use during hospitalization.

Suggestions to those who are hard of hearing

• Look directly at the speaker (preferably in a good light) since observation of lip movements proves helpful.

• Concentrate on the speaker.

• Observe the total situation, since this may give a lead to the topic of conversation.

Hearing Aids

Some persons with a hearing deficit may be helped by using a hearing aid, which is a small, battery-operated instrument which amplifies sounds. Aids are helpful to persons who have reduced conduction of sound waves into the inner ear. Before purchasing a hearing aid, the person with a hearing deficit should be examined by a doctor for evaluation of the residual hearing and identification of the type of hearing loss. The selection of the aid is based on the patient's particular type of hearing loss. If an aid is recommended, it should be worn for a trial period to determine if it does help.

2. Mark the sentences T (true) or F (false):

1. The listener should have an unobstructed view of the speaker's face.
2. Talk quickly, articulate distinctly, and refrain from increasing the tone of your voice.
3. When conversing naturally, it is recommended to use proper sentence structure and avoid using incomplete or broken statements. This can help to facilitate clear and effective communication between individuals.
4. If repetition is necessary, rephrasing the communication may not be helpful; remember that vowels are heard more readily than consonants.
5. It is important to be mindful of the length of a conversation and to avoid unnecessarily extending it beyond what is needed or appropriate.
6. Maintain a distance of 4-5 feet from the aid and speak in a natural volume and tone.
7. It is helpful to observe the speaker's lip movements, so it is recommended to look directly at the speaker, preferably in good lighting.
8. The choice of the aid is not determined by the specific type of hearing loss of the patient.

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