Useful Information for Preparing for the NCLEX

A:

Absorption of medication from fastest to slowest: IV, Sublingual, IM, Subq, Oral

ACTH: ACTH (adrenocorticotropic hormone) is secreted by the anterior pituitary and stimulates the adrenal cortex to produce hydrocortisone, which is immunosuppressive.

Agnosia: Inability to know what objects are used for.

Addison's disease*:* The manifestations of Addison's disease (also called adrenal insufficiency or hypocortisolism) are due to mineralocorticoid deficiency that results in renal sodium wasting and potassium retention. Other findings are dehydration, hypotension, hyponatremia, hyperkalemia and metabolic acidosis.

Administration of Eye Medications:

Technique; Place in *conjunctiva sac*; Put pressure on the *inner cantus*

Terms; O.D. = *right eye*; O.S. = *left eye*; O.U. = *both eyes*

Mydriatics *dilate pupils*

Miotic *constrict pupils*

Antidiuretic Hormone (ADH), helps to control fluid balance.

Insufficient ADH causes massive diuresis (diabetes insipidus).

Administration of Ear drops

For infants and toddlers pull ear *down and back*

For adults and older children pull ear *up and back*

Have patient lie on unaffected side

Stay on side for 5-10 minutes after drops instilled

Can put cotton moistened with medication in ear to keep drops in place

Agoraphobia

Albuterol: is a beta-adrenergic medication that can cause the side effects of nervousness, restlessness, and a fast heart rate

Aminoglycoside (Gentamicin): They are bactericidal, but can also be ototoxic and nephrotoxic, meaning that they can be harmful to the client's hearing and kidneys.

Renal function should be assessed by checking serum BUN and creatinine levels

Monitor intake and output.

Monitor the daily weight.

The client should also be assessed for any adverse effects on his/her hearing, such as tinnitus or vertigo. Finally, the nurse should notify the physician of any concurrent Lasix use because of that drug's nephrotoxic potential as well.

Antiembolic stockings; should be applied first thing in the morning and worn throughout the day.
The stockings are not worn during sleep.
The stockings should be worn throughout the day.

Aphasia: *Inability to speak 1)* Receptive: *Malfunction in speech interpreting center.*
2) Expressive: *Difficulty getting words out; disconnect between thought and what is said*

Apraxia: *Inability to perform a previously learned act.*

Arteriovenous: The client who is having an arteriovenous graft placed for hemodialysis needs to protect the entire arm from harm or injury.
No blood draws, intravenous infusions, or blood pressure assessments should be done on this arm for fear of injury to the graft.
The graft will develop a pulse which is a sign of a functioning graft.

Asbestosis: Patients with asbestosis are at high risk for developing bronchogenic cancer.
The asbestos fibers in the lungs cannot be removed and the fibrosis is not reversible.

Asthma: client monitor on a daily basis Peak air flow volumes because the peak airflow volume decreases about 24 hours before clinical manifestations of exacerbation of asthma.

Autografts are done with tissue transplanted from the client's own skin.

Autonomic dysreflexia: Injuries T-6 and above.

Autonomic dysreflexia is an exaggerated sympathetic response that occurs in clients with spinal cord injuries at or above the mid-thoracic level. Symptoms include profuse sweating and extreme elevations in blood pressure.

Other signs and symptoms; *High blood pressure*, *Severe headache*, *Blurred vision*, *Nausea*, *Pilomotor, and erection (Goose bumps).*

Cause; *Full bladder*, *Fecal impaction*, *Other stimuli*

Interventions, *Raise head of bed, Assess for full bladder*, *Catheterize PRN*, *Notify physician*, May need antihypertensive medication

Autonomic Nervous System: Sympathetic: *Emergency; Fight and Flight*

Neurotransmitter is *adrenalin*, Heart rate *increases*, Blood pressure *increases*, Bronchi *dilate*, Pupils *dilate*, Peristalsis *decreases.*

Parasympathetic: *Maintenance; Feed and Breed*

Neurotransmitter is *acetylcholine*, Heart rate *decreases*, Blood pressure *decreases*, Bronchi *constrict*, Pupils *constrict*, Peristalsis *increases.*

B:

Bee stung: Apply a cold compress

Bell's palsy: Involves the *seventh* cranial nerve (*facial*).

Manifestations; Facial paralysis involving the eye, tearing of eye, Painful sensations in the face sagging of one side of mouth; drooling.

Management; *Steroids*, *Analgesics*, *Protect involved eye*, *Active facial exercises.*

Blood drawn: Because of the risk of blood splashing when drawing blood and inserting an intravenous access line, the nurse should wear a gown, gloves, and eye shield

Bone marrow aspiration: when preparing a client for a bone marrow aspiration, the nurse should have the client void in addition to assessing vital signs and positioning the client in either the supine or prone positions.

Breath sounds: Bronchovesicular breath sounds are considered a normal type of breath sound.

Breast Cancer: A delay in the onset of menopause is one risk factor for the development of breast cancer.

Broca's area is the area within the cerebral cortex that promotes the vocalization of words. This is considered the motor speech area.

The frontal lobe's primary function is the control of voluntary muscle movements.

The cerebellum controls balance, posture, and coordinated muscle movement. The temporal lobe are to receive and interpret olfactory and auditory stimuli.

Bronchoscopy: The client will have received a local anesthetic to block the gag reflex during the bronchoscopy.

Withhold food and fluids until gag reflex has returned.

Bronchoscopy is usually done under a local anesthetic with conscious sedation.

Burns: Kidney functions (Blood urea nitrogen) must be monitored closely in the first 24 hours since kidney or renal may follow in a few days

C

Calcium Channel blocker i.e. Nifedipine (Procardia), i.e. Verapamil (Calan): are calcium channel blocker used in the treatment of angina pectoris. The nurse should instruct the client to not take the medication if the radial pulse is 50 beats per minute or less.

Verapamil (Calan) a calcium channel blocker, blocks the influx of calcium into the cardiac cell to reduce the heart rate.

Cardiac catheterization: Care of the client recovering from a cardiac catheterization includes maintaining a pressure dressing over the catheter insertion site to reduce the risk of bleeding after the procedure.

The client should be flat in bed or on bed rest for a pre-determined period of time after the procedure to reduce the risk of bleeding from the catheter insertion site.

Fluid restriction is not usually a part of cardiac catheterization care.

Client's vital signs should be monitored more frequently than every 8 hours after a cardiac catheterization.

Cardiogenic shock: Assessment findings in a client with cardiogenic shock include a rapid heart rate,

weak thready pulse, diminished heart sounds, dysrhythmias, adventitious lung sounds, cool, pale moist skin, and chest pain

Cataracts: Lens becomes opaque; occurs most often with aging.

Cataracts cause blurred vision due to the opacity of the lens

Signs and symptoms; *Blurred vision*, *Loss of visual acuity*, and *Light sensitivity*

Persons with cataracts see better in dim light.

Without treatment blindness will result.

Pre-operative: *Mydriatics* to dilate pupil

Post-operative: Position any way except *operative side and upside down.*

Avoid activities that would raise *intraocular pressure*; No hair washing, No bending, stooping, lifting, No coughing

Patch on eye.

Celiac disease: is intolerance for gluten which is a protein found in wheat, barley, rye, and oats.
The parents should be instructed to avoid providing processed baked goods, cookies, and crackers to the child.
To effectively manage celiac disease, the client needs to follow a gluten-free diet which means avoid consuming food products containing barley, wheat, and rye.
The mother and client should be instructed to increase fruits, vegetables, lean proteins, and rice.
Corn, rice, soybeans and potatoes are digestible by persons with celiac disease.

Cerebrovascular Accident: *Destruction of brain cells due to decrease in cerebral blood flow and oxygen. Two types are common; thromboembolic* and *Hemorrhagic*

Thromboembolic stroke patient, give *Thrombolytic drug (tPa, streptokinase*; must be given within *three hours* of onset of stroke and *Heparin and Lovenox Warfarin (Coumadin)* for long term therapy.

Risk factors for thromboembolic stroke include; *Hypertension, Atherosclerosis, Smoking.*

Risk factors for hemorrhagic stroke include; *Hypertension,* Persons taking multiple types of *anticoagulant such as Vitamin E, ginkgo, and aspirin*

Central venous catheter: Before a new central venous catheter can be used for fluid, medications, or nutrition, the catheter placement must be validated. The location of the catheter tip is confirmed by chest x-ray.

Chest tube drainage: intermittent bubbling in the water-seal chamber is normal.
Continuous bubbling in the suction chamber when attached to wall suction is normal.

An air leak in the system would cause an absence of bubbling in the suction control chamber not the water seal chamber.
Changes in fluctuation in the water seal chamber indicate either obstruction or re-expansion.

Chicken pox ::(varicella the chicken pox rash begins as a macule, with fever, and progresses to a vesicle that breaks open and then crusts over. When all lesions are crusted, the child is no longer in a communicable stage.

Child:
By the end of the first year of life, the client should triple the birth weight
According to Erikson, the developmental stage of a toddler is one of autonomy vs. shame and doubt.
The protest phase of separation anxiety is a normal response for a toddler.
In toddlers, ages 1 to 3, separation anxiety is at its peak.
With the preschool-age child, an effective teaching strategy would be for the nurse to use a doll.
Because the newborn lacks sufficient coagulation factors, vitamin K is administered prophylactically to newborns to stimulate the production of clotting factors.
Vastus lateralis, a large and well developed muscle, is the preferred sit for a 5 year old child.
Scoliosis screening is most applicable for prepubescent and adolescent female
Cholecystectomy: The T-tube post-cholecystectomy should be draining an average of 20 ml/hr.
If the client's tube is not draining a sufficient amount, the nurse should place the client in the Fowler's position to enhance drainage.
Chronic Renal Failure: Magnesium hydroxide (Maalox) should be avoided in the client with the diagnosis of chronic renal failure
Colostrum: The first breast milk is called colostrum.
Colostomy pouch: Should be empty when it is 1/3 to 1/2 full. If the pouch becomes more than half full it may separate from the flange.
Conversion:
1 gram is equal 1000 mg
One cup is equal to 240 ml,
1 ounce is equal to 30 ml
1 quart is equal to 4 cups or 960 ml.
60mcgtts is equal to 1 ml
Coombs Test: The Coombs test is only for an Rh-negative mother if the baby's father is Rh-positive.
Corticosteroid i.e. methylprednisolone (Solu-Medrol): Methylprednisolone (Solu-Medrol) should be taken as prescribed and when no longer needed, will be tapered from the client and not abruptly stopped.
Weight gain is a common side effect and stopping the medication without tapering doses could cause the client additional symptoms.
Nausea and vomiting are not expected while taking this medication.
Fluid restriction may not be necessary.
Clients undergoing corticosteroid therapy are immunocompromised and can easily develop a hospital-acquired infection.

Crack: signs of crack include; Fatigue, Apathy, Lethargy

Cranial Nerve		Function
1.	*Olfactory*	*Smell*
2.	*Optic*	*Vision*
3.	*Oculomotor*	*Pupil constriction, upper eyelid, extraocular movements*
4.	*Trochlear*	*Downward, inward eye movements*
5.	*Trigeminal*	*Face, eye surface, chewing*
6.	*Abduces*	*Lateral eye movements*
7.	*Facial*	*Taste, facial movement*
8.	*Auditory*	*Hearing, balance*
9.	*Glossopharyngeal*	*Tongue, pharynx, swallowing*
10.	*Vagus*	*Pharynx, larynx, parasympathetic*
11.	*Spinal accessory*	*Sternomastoid and trapezius muscles*
12.	*Hypoglossal*	*Tongue movement*

CT (CAT) Scan

1. X-rays taken in layers
2. Before test: *Check for iodine allergy*

CVP*:* **The normal CVP is between 4-10 cm H_20**

Cystic fibrosis: the client will most likely be placed in a single room with standard precautions to reduce the spread of microorganisms.

Signs and symptoms of cystic fibrosis include a "salty taste" to the skin, foul smelling bulky stools, and a chronic moist productive cough.

The child with cystic fibrosis requires a well-balanced diet that is high in protein and calories. Fat does not need to be restricted since these children lose fat in the stool. Recall one of the characteristics is fatty, foul smelling stool.

Client diagnosed with cystic fibrosis client to receive supplemental pancreatic enzymes along with a diet high in protein and carbohydrate.

D:

Delirium: is an abrupt onset of a confessional state.

Decubitus ulcer: Food should be high in proteins and vitamin c

Diabetic ketoacidosis: intravenous fluid of choice in the beginning treatment of a client with diabetic ketoacidosis is 0.9% Normal saline or 0.45% Normal saline

Initially, serum potassium levels may be normal but will decrease during treatment because of rehydration. Potassium replacement is to begin early in treatment by adding potassium to rehydrating fluids.

Denver Developmental Test II: The Denver Developmental Test II is a screening test to assess children from birth through six years of age in the personal/social, fine motor adaptive, language and gross motor development. During this test a child experiences the fun of play.

Detached Retina; Retina separates from choroid (blood supply) layer

Manifestations; *Gaps or blank areas in vision*, *Spots before eyes*, *Flashes of light*, *Curtain over the field of vision*, *Floaters*

Management; Pre-operative care, Goal is to keep retina in touch with choroid layer, Cover both eyes to prevent tracking

Post-operative care*:* Position: *flat or low-Fowler's*, *No reading for several weeks*, *Eye patch*, Avoid bumping or jarring of head.

Digitalis: The client is hypokalemic. Digitalis toxicity occurs more readily in clients who have low serum potassium.

Digoxin: decreases the conduction of electrical impulses through the atrial-ventricular node and is used to treat supraventricular tachycardia

The nurse should instruct the client to count their own pulse using the radial artery for one full minute each day before taking the medication.

Sign and symptoms of toxicity include; Anorexia, Nausea and Vomiting.

Down syndrome: Newborns diagnosed with Down syndrome have a characteristic mongoloid.

Droplet precautions i.e. TB patients: When caring for a client in droplet precautions, care should be provided by wearing a mask, eye protection, and/or face shield.

DTaP diphtheria and pertussis vaccine and tetanus toxoid; Common side effects of the diphtheria and pertussis vaccine and tetanus toxoid include elevated temperature, irritability, and anorexia that occur within 2 days of the injection.

The series does not have to be restarted no matter how long since the previous dose was given.

Dysarthria: *Difficulty saying words*

E:

Early decompensation of respiratory failure: Clinical manifestations of early decompensation of respiratory failure include nasal flaring, retractions, grunting, wheezing, anxiety, mood changes, headache, hypertension, and confusion.

EEG: Black tea contains caffeine which will interfere with the results of the EEG. Caffeine is restricted before the EEG is done.

EEG requires the client to fall asleep during the exam.

Clients will be asked to stay awake the night before or have no more than 2-3 hours of sleep to ensure that they will be able to sleep during the EEG.

Food and fluids is not restricted prior to the procedure.
If the client is taking anticonvulsants, antidepressants, barbiturates or sedatives, they will be asked to stop taking the medication at least 1-2 days before the procedure.
Emergency: Black Tag: Death is imminent for this client. The black triage tag is for those clients whose injuries are such that survival is not expected.
Red Tag: is the color tag used for clients with injuries to two or more body systems.
Yellow is the color tag used for clients with injuries to one body system.
Green is the color tag used for clients with injuries but are ambulatory. These individuals might be termed the "walking wounded
Encephalitis: Inflammation of brain tissue caused by a *virus.*
Care as for patient who has increased intracranial pressure.
Endometriosis: The client with endometriosis has pain caused by dysmenorrheal and chronic pelvic irritation.
The intervention that would be a priority for this client would be to medicate for pain as prescribed.
Engagement means that the baby's head no longer floats freely, but has dropped down into the pelvis. In a multipara, engagement normally occurs about two weeks before birth.
Ethambutol: may cause optic neuritis and color blindness.

F

Fat Embolism: Restlessness, confusion, irritability and disorientation may be the first signs of fat embolism syndrome followed by a very high temperature.
Female catherization: Lithotomy position
Fetal Alcohol Syndrome (FAS). Major features of FAS consist of facial and associated physical features, such as small head circumference and brain size (microcephaly), small eyelid openings, a sunken nasal bridge, an exceptionally thin upper lip, a short, upturned nose and a smooth skin surface between the nose and upper lip.
Vision difficulties include nearsightedness (myopia). Other findings are mental retardation, delayed development, abnormal behavior such as short attention span, hyperactivity, poor impulse control, extreme nervousness and anxiety. Many behavioral problems, cognitive impairment and psychosocial deficits are also associated with this syndrome.

Fibromyalgia: The nurse should instruct the client to participate in a scheduled exercise plan to include bicycling and swimming since these activities increase the blood supply, oxygen, and nutrients to joints and muscles and help reduce the pain.
Exercise should be done to help with the muscular aches and pains.

(Fosamax) Alendronate is irritating to the esophagus so the client should be instructed to ingest the medication with 6 to 8 ounces of water, on an empty stomach, and remain upright for at least 30 minutes afterwards
Furosemide (Lasix) should be administered slowly, no faster than 20 mg/minute.

Furosemide (Lasix) is ototoxic which means the nurse should assess the client's hearing and not vision. Measuring the weight daily of a client prescribed furosemide (Lasix) provides an indication of the client's fluid volume status.

G

Gavage tube placement: Assessing correct gavage tube placement is the priority action in a gavage feeding.

Auscultating the stomach and listening for gurgling sounds while air is instilled through the tube is the most common and one of the most reliable ways to check for tube placement.

Ideally, tube placement should be checked by x-ray.

Gallon: One gallon of fluid is 3785.4 milliliters

GERD: may be aggravated by a fatty diet. A diet low in fat would decrease the symptoms of GERD. Other agents which should also be decreased or avoided are: cigarette smoking because of the nicotine, caffeine, alcohol, chocolate, and the narcotic analgesic meperidine (Demerol)

Genital herpes: For a client with an outbreak of genital herpes prior to or during labor, the preferred method of childbirth is cesarean because there is a 50% chance that the child will develop some form of herpes infection.

Infected infant is often asymptomatic at birth but after an incubation period of 2 to 12 days will develop symptoms of fever, jaundice, seizures, and poor feeding.

Glargine (Lantus) insulin is not recommended for use in pregnancy, patient should be on birth control if they have to be on Lantus insulin.

Lantus insulin should not be mixed or diluted with any other insulin product.

Glasgow coma scale: The Glasgow coma scale is divided into three behaviors which are numerically scored based upon response.

The maximum score a client can receive is 15.

Glaucoma: Chronic (Open Angle) Glaucoma; Increase in intraocular pressure due to slow drainage of aqueous humor through the Canal of Schlemm.

Signs and symptoms; *Halos around objects*, *Decrease in peripheral vision*, *Increase in intraocular pressure*.

Management; *Miotic* eye drops daily for the rest of the life (*Pilocarpine*, *Carbachol)*

Anticholinesterase: *Humorsol*, Carbonic anhydrase inhibitor: *Diamox.*

Acute (Closed Angle) Glaucoma, Frequently caused by pupil dilation for eye exam

Signs and symptoms, Eye pain, Rainbows and halos, Nausea and vomiting, Emergency; may require surgery.

Severe eye pain is more characteristic of acute (closed angle) glaucoma.

Pilocarpine is a miotic and causes pupil constriction. This pulls the iris away from the cornea and increases aqueous flow.

Growth and Development:

Infants 1-1 yr.: ***In breast-fed infants, stools are frequent and yellow to golden, and vary from soft to thick liquid in consistency. No change in feedings is indicated.***

Toddler (1 year to 3 years): Can build a tower of 8 blocks.

1. **A 30 month-old should be able to drink from a cup without a cover. An approach to use with the months of children is to divide by 12 and think in years.**

School Age: Thinking via Concrete Operations (Piaget) is firmly established.

Adolescent: Begins to be able to think abstractly.

Young adult: Intimacy vs. Isolation (Erikson)

Middle adult: Menopause

Older adult: Normal cardiac output decreases.

Guillain Barre Syndrome; Manifestations, Ascending paralysis which may progress to respiratory muscles.

Paralysis ascends and stays at maximum level for 2 - 3 weeks and then slowly descends

Abnormal sensations of tingling and numbness

Management; No specific therapy; Supportive care of paralyzed, immobilized patient

H:

Heartburn: Avoid Bacon, scrambled egg, pancake and orange juice.

Hemiplegic: *Right* brain injury causes *left* side paralysis, *Speech language deficits, and slow cautious* behavior.

Left hemiplegics Difficulty with *visual-spatial relationships, Quick impulsive* behavior

Hemoglobin A1C: A normal controlled level for a client diagnosed with diabetes mellitus is between 2.5% and 6%.

A hemoglobin A1C level of 7% would be seen in the client with average daily blood glucose readings of 170 mg/dL.

A hemoglobin A1C of 9% will be seen in the client with average daily blood glucose reading of 240.

A hemoglobin A1C of 8%. Will be seen in the client with average daily blood glucose reading for a 205

A hemoglobin A1C of 6% Will be seen in the client with average daily blood glucose reading for a 135.

Heparin: The partial thromboplastin time (PTT) is used to determine the anticoagulation effects of heparin and not warfarin.
The PTT should be 1 ½ to 2 times the control value for patients on heparin.
Hepatitis C: blood transfusion.
Hepatitis B: raw oysters or shell fish, many different sex partners
Heroin: Signs of heroin withdrawal include rhinorrhea, yawning, insomnia, irritability, panic, diaphoresis, cramps, nausea, vomiting, muscle aches, chills, fever, lacrimation, and diarrhea.
Herpes: Acyclovir does not cure herpes. It shortens the episodes and makes them less frequent.
If herpes returns treatment should be started immediately for best results.
HIPAA: According to The Health Insurance Portability and Accountability Act of 1996, a client's personal health information is to be disclosed to health care providers when needed to provide care.
Histoplasmosis: Histoplasmosis is caused by a fungus that grows in chicken and bat manure. Bats live in caves. Exploring caves is a likely source of exposure to the fungus.
Histrionic clients: They tend to talk endlessly about themselves in a way to gain attention and praise. When dealing with these clients, it is important to keep them on the topic of the discussion to bring out the real thoughts and emotions of the client while going around their attention-seeking stories and behavior.
Homan's sign is when there is pain in the calf or behind the knee on forced dorsiflexion of the foot (curling toes upward).
Hormone replacement therapy: The female client who has been adhering to hormone replacement therapy is at an increased risk for developing a deep vein thrombosis.
Smoking would potentiate the effects of the hormone replacement therapy and encourage the development of a thrombosis
Hyperglycemia: Increased urination is a sign of hyperglycemia.
Hypocalcemia: Inflating the BP cuff on the client's arm for a few minutes and observing for carpopedal spasms is known as the Trousseau's sign. This is one of the physical predictors of hypocalcemia.
Hypoglycemia: Sweating is a sign that the blood sugar is too low.
Fatigue is a sign that the blood sugar is too low.
Hypokalemia: A U wave and a ST depression are observed in clients with hypokalemia.
Chronic renal failure: In clients with chronic renal failure, the kidneys are not able to excrete the uremic and metabolic wastes and this accumulates in the blood in the form of urea crystals. Excessive urea crystals come out of the sweat glands which causes itchiness and discomfort.
Hypoxemia: Color changes in the mucous membranes are a late sign of hypoxemia.

I:

Immunization: The tetanus, diphtheria, and pertussis (Tdap) vaccination should be provided at age 11 or 12 years for those who have completed the recommended childhood DTaP vaccination series.

Ileostomy: Output which is from the small intestine is of continuous, liquid nature. This is high pH, alkaline output contains gastric and enzymatic agents that when present on skin can denuded skin in a few hours.

It poses the highest risk for skin breakdown for all ostomies.

Increased Intracranial Pressure: Physiological Changes: Pulse decreases, Respirations decrease, Pulse pressure widens, Projectile vomiting, Lethargy; decrease in level of consciousness, Pupil changes ((Dilate, Nonreactive to light, Unequal,), Pupil changes occur on the injured side of the brain Motor function loss on opposite side of body from injury

Normal ICP is 0-10 mm Hg; above 15 mm Hg is abnormal.

Nursing Care; *Patent airway*, *Vital signs*, *Neuro checks*, *Check for CSF leaks*, *Elevate head of bed 20-30 degrees*

Pharmaceutical interventions; Steroids, Diuretics such as mannitol or furosemide (Lasix), Anticonvulsants.

Signs of increased intracranial pressure (IICP) in infants include bulging fontanel, instability, high-pitched cry, and cries when held.

Vital sign changes include pulse that is variable, e.g., rapid, slow and bounding, or feeble. Respirations are more often slow, deep, and irregular.

Infusion of packed red blood:

Although there are many more steps that are done when administering a blood product to a client, the order in which the choices provided should be done are:

Verify the blood product and the order with another nurse;

Hand hygiene and explain the procedure to the client.

Select the correct Y infusion set and prepare infusion bag of 0.9% sodium chloride.

Invert the blood bag, spike the bag, and fill the filter.

Infuse the blood at a rate of 2 to 5 ml/minute.

Assess client vital signs for the first 15 to 30 minutes of the transfusion.

Isoniazid (INH*):* Liver function tests, SGOT (AST) and LDH would be performed to serve as baseline.

Liver toxicity can occur with INH.

If a patient is taking INH, Vitamin B6 or pyridoxine should also be taken to prevent peripheral neuritis

International Normalized Ratio needs to be between 2.0 and 3.0 before discontinuing the heparin Infusion.

Intramuscular Injections: The primary site for administering an intramuscular injection in clients over age 7 months is the ventrogluteal site.

IM injection to a 6-month-old use the Vastus lateralis.

For IM injections to adults, **the nurse should pull the skin taut, and insert the 21-gauge needle**

A 21 gauge 1 inch needle would the most appropriate for the 3-year-old child.

Vastus Lateralis is the site preferred for intramuscular injections in children until walking for at least one year.

Vastus lateralis site should be used for no more than 1 to 2ml depending upon muscle size.

Iron: Iron rich foods include red meat, fish, egg yolks, green leafy vegetables, legumes, whole grains, and dried fruits such as raisins.

Iron rich foods include lean red meat, fish, egg yolks, green leafy vegetables, legumes, whole grains, nuts and dried fruits such as raisins.

The dorsogluteal site should not be used in children until the child has been walking for at least one year.

Deltoid muscle is rarely used in young children except for small amount of injections like vaccines.

Irrigate a wound: Sterile:

The nurse should first explain the procedure to the client.

Then wash hands and apply disposable gloves.

Remove and discard the old dressing.

Before preparing the sterile solution for irrigation, the nurse needs to apply sterile gloves, position the sterile basin below the level of the wound, and then fill the syringe with sterile irrigant.

Applying a sterile dressing is one of the last steps in this procedure.

Kawasaki disease: live immunizations should be delayed; i.e. measles, mumps and rubella vaccine should be delayed.

L

Lab Values: Normal Values:

Therapeutic serum digoxin level is 0.5 — 2.0 ng/ml.

RBC of 4.1-5.1 million/mm^3

Hemoglobin of 12.0-16.0g/dL

WBC of 4.5-11.0 X1000 cells/mm^3 (µL)

Absolute neutrophil count of 1.8 - 7 (x1-3uL)

Platelet count of 140,000 - 390,000 (mm^3)

Lymphocyte level is between 1,700 to 3,500/mm^3

Laryngitis: a client with laryngitis should be instructed to limit verbal communication.

Levothyroxine sodium (Synthroid): Thyroid preparations such as levothyroxine sodium (Synthroid) potentiate the effects of warfarin (Coumadin).

Lantus insulin is not recommended for use in pregnancy, patient should be on birth control if they have to be on Lantus insulin.

Labor: The safest time to offer analgesia is when dilation is between 4 to 7 centimeters.

Lantus insulin should not be mixed or diluted with any other insulin product.

Leopold's Maneuvers: With Leopold's Maneuvers, trained health care professionals use a series of four distinct actions to palpate the uterine fundus to determine the fetus's position and presentation

Lumbar Puncture (spinal tap) Purpose: to withdraw cerebro-spinal fluid

Color of normal CSF is *clear*

Normal CSF contains *glucose*

Preparation of patient: *Empty bladder*, Position in *side lying position knees pulled up to chest or sitting on side of bed and leaning forward*

Care of patient after procedure: *Flat for 6-8 hours.*

Lobectomy: The patient should be positioned in semi—Fowler's or semi-sitting position on his nonoperative side.

Post procedure; encourage deep breathing and coughing exercises.

Arm exercises are important to prevent shoulder alkalosis for frozen shoulder.

Encourage leg exercises to prevent thrombophlebitis.

Lung Cancer: Both the incidence and death rates from lung and prostate cancers in the African-American population are higher than for any other racial group.

M

Meniere's disease: Cause *unknown;* the cause of Meniere's disease is not clearly understood. It is thought to be caused by an imbalance of fluid in the inner ear. What causes that is not known**.**

Manifestations; *Balance problems, dizziness*, *Motion sickness, nausea and vomiting*, *Drop attacks*, *Ringing in ears.*

Management; *Low salt diet*, *Dramamine, Benadryl, antivert or atropine*

Stop smoking, *Safety*, *Surgery*

Meningitis: Inflammation of the meninges, signs and symptoms include; photophobia, fever, irritability and a stiff neck. A spinal tap or lumbar puncture is one of the diagnostic exams used in diagnosing meningitis. The definitive diagnostic test for meningitis is spinal tap and blood cultures. Treatment for meningitis is bed rest, intravenous fluids and intravenous anti-inflammatory medications.

Management of care; *Isolate* patient until cause of meningitis is known, Keep patient's room nonstimulating, if bacterial expect massive antibiotics, Observe for increased intracranial pressure.

Minerals: The major minerals are calcium, magnesium, sodium, potassium, phosphorus, sulfur, and chlorine.

Iron is a trace mineral, along with copper, iodine, manganese, cobalt, zinc, and molybdenum.

Menopause A delay in the onset of menopause is one risk factor for the development of breast cancer.

Milwaukee brace: It is used to correct curvature of the spine.

The brace must be worn long-term, during periods of growth, usually for 1 to 2 years.

It should be inspected daily.

The brace should be worn day and night.

Should/may be removed for shower.

Monoamine oxidase inhibitor i.e. phenelzine (Nardil), The client should be instructed to avoid foods with tyramine such as bananas, cheese, yogurt, beer, red wine, chocolate, and processed meats.

The effects of the medication can take from 2 to 8 weeks to be felt. The client should be instructed to avoid all herbal remedies while taking this medication.

Magnetic Resonance Imaging (MRI); Magnetic field created around patient lining up ions

Before procedure: Ask patient if he/she has *any metal* in the body, Ask patient if he/she has *claustrophobia.*

Multiple Sclerosis: Damage to *myelin sheath* causing poor nerve impulse transmission.

It is an Autoimmune.

Babinski reflex is negative in multiple sclerosis

Management; Immunosuppressants, Muscle relaxants, Care for urinary retention: some patients may self-catheterize at home, Will need assistance with activities of daily living as disease progresses.

The client will need rest periods between activities.

Myasthenia Gravis: Myasthenia gravis is caused by a deficiency in the amount of the neurotransmitter acetylcholine at the myoneural junction.

Pathophysiology; Autoimmune disease, Antibodies bind the *acetylcholine receptor sites* at the myoneural junction.

Manifestations; Diplopia, Dysphagia, Muscle weakness, Ptosis, Mask like facial expression, Weak voice, hoarseness.

Muscle strength is best early in the day. Weakness usually progresses during the day and is at its worst in the evening.

Myasthenic Crisis: Caused by under medication, Manifested by extreme weakness,

Tensilon relieves symptoms,

Myasthenia Crisis; Airway, Arterial blood gasses, Increase medications, Communication.

Cholinergic Crisis; Caused by over medication, Manifested by weakness and salivation, nausea and vomiting.

Tensilon makes symptoms *worse;* Tensilon works almost immediately to cause an increase in muscle strength by increasing the amount of acetylcholine at the myoneural junction.

Management: Antidote: *Atropine*, Airway, and Communication

Muscle strength is best early in the day. Weakness usually progresses during the day and is at its worst in the evening

N:

Neuroblastoma: tumor in the adrenal gland and the spinal cord.
Infants with neuroblastoma are often in severe pain.
One of the most common signs of neuroblastoma is increased abdominal girth.
Clinical manifestations of neuroblastoma include an irregular abdominal mass that crosses the midline, weakness, pallor, anorexia, weight loss and irritability.

NG Tube: Insert the nasogastric tube:

1) **Gather equipment wash hands, check the client's armband, and explain the procedure.**
2) **Raise the head of the bed to a 45 degree angle with a pillow behind shoulders.**
3) **Measure the length of the tubing from the bridge of the nose to the earlobe and mark with tape.**
4) **Have the client blow the nose and take a few sips of water.**
5) **Lubricate the first 4 inches of the tube with water soluble lubricant.**
6) **Pass tube through nostril to back of throat, instructing the client to swallow.**
7) **Advance tube until taped mark is reached.**
8) **Secure the tube to the nose with a split piece of tape.**

Nonmaleficence: is the duty to cause no harm to others

Non-tender moveable lymph nodes in the neck region are a common finding in young children. Non-tender moveable lymph nodes are not a serious finding.
Non-tender moveable lymph nodes do not indicate an infection.

NSAIDs: are non-narcotic pain medications and are relatively safe for both children and adults.

O

Oatmeal bath: The use of an oatmeal bath is helpful to reduce skin itching and pruritis.
Oatmeal is a colloid which lubricates and eliminates the toxins within the skin which cause pruritis.

Oatmeal bath will not directly hydrate the skin or improve skin turgor, and will not heal skin.

Osteomalacia: results from the lack of Vitamin D in the body.

This can be due to an inability of the gastrointestinal system to absorb Vitamin D from the diet.

It can also be due to extensive burns, chronic diarrhea, kidney disease, pregnancy and some drugs such as Dilantin.

Osteomyelitis: The client with osteomyelitis will need to keep the extremity immobilized for adequate healing to occur.

Otosclerosis: Stapes doesn't move as it should.

Oxygen therapy: Arterial blood gasses give the most specific information of the adequacy of the oxygen therapy.

Stapedectomy: Removal of stapes

Nursing care concerns; Safety because patient may be dizzy

Patient may not hear well for a few days until packing removed and swelling decreases

P:

Palliative care is a type of care in which symptoms are controlled to provide relief and comfort to the client.

In the case of a terminally ill client, the radiation treatments could help reduce pain and control symptoms of the terminal disease. Choice A is incorrect because the client most likely did not request to receive radiation treatments.

Pancreatic enzymes: should be taken with each meal and every snack to allow for digestion of all foods that are eaten.

Parathyroid glands: When the parathyroid glands are removed, the body loses the ability to regulate calcium therefore the nurse should instruct the client to ingest foods rich in calcium such as milk, dairy products, salmon, oysters, tofu, broccoli, and kale.

Parathyroid glands have no role in sodium balance.

Parkinson's disease: *deficiency of dopamine*

Assessment findings; Tremors of the upper limbs; "pill rolling"; resting tremor, Rigidity - loss of postural reflexes, Bradykinesia (moves slowly), *Stooped* posture, Shuffling, propulsive gait, Monotone speech, *Mask like* facial expression, *Increased* salivation, drooling, Excessive sweating, seborrhea, Lacrimation, constipation, Decreased sexual capacity.

Drugs to increase dopamine: *Levodopa (L-dopa), Carbidopa - levodopa (Sinemet), Bromocriptine (Parlodel.*

Pavlik harness: To prevent skin breakdown on areas near the harness, the infant should wear an undershirt and socks under the harness. These items will prevent rubbing of the skin.

Peak flow meter: is used to measure peak expiratory flow volume. It provides useful information about the presence and/or severity of airway obstruction.

Peritoneal dialysis: Some complications of peritoneal dialysis include fluid overload, dehydration, peritonitis, and hernia.

The nurse should instruct the client that when the fluid is removed, blood-tinged fluid could indicate peritonitis and should be reported immediately to the physician.
Straw-colored fluid removed is considered a normal finding.
Dialysate should be at least body temperature when infused to provide comfort and enhance exchange. Fluid that is cloudy when removed could also indicate peritonitis and should be reported to the physician.

Penicillin: Ceftriaxone (Rocephin) a third-generation cephalosporin. If a history of a penicillin allergy, cephalosporin medications should be avoided because of the risk of cross-hypersensitivity

Peritonitis: **Signs and symptoms of peritonitis include abdominal pain, tenderness, and abdominal rigidity.**
Abdominal manifestations of peritonitis include abdominal rigidity.
Systemic manifestations of peritonitis include tachycardia, fever, and oliguria

Pilocarpine is a miotic and causes pupil constriction. This pulls the iris away from the cornea and increases aqueous flow.

Pinworms. Signs of pinworm infection include intense perianal itching, poor sleep patterns, general irritability, restlessness, bed-wetting, distractibility and short attention span.

Placenta previa: sign is Bright red blood and Painless

Potassium: The normal potassium level is from 3.5 - 5.2 mEq/L
Low potassium can cause cardiac dysrhythmias.

Pneumonectomy: Turning, coughing and deep breathing exercises is a top priority post-surgery.
Observe the tracheal position is also very important**.**
Most appropriate position is Semi-Fowler's on his back.
Passive range of motion exercises should be started within 4 hours of surgery to prevent adhesion formation.

Pneumothorax: **Tracheal deviation is a hallmark assessment finding for a pneumothorax.**
The nurse should obtain a chest tube insertion tray in preparation for chest tube insertion.

Pregnancy:
Third trimester: In the third trimester, an awake, healthy fetus should move at least 3 times per hour. If the baby does not move, the mother should drink a glass of juice and then start a new count.
Pregnancy tests measure the hormone human chorionic gonadotropin (hCG) in the urine or in the blood. Levels can be first detected about 12-14 days after conception and peak in the first 8-11 weeks of pregnancy.
The increased vascularity in vagina is called **Chadwick's sign**; the increased vascularization and softness of uterine isthmus is **Hegar's sign**; and the softening of the cervix is **Goodell's sign.**

Presbycusis; the client with presbycusis has a change in the ability to hear especially when there is a great deal of environmental noise.
To facilitate communication with this client, the nurse should reduce environmental noise to facilitate appropriate hearing.

Presbyopia: eye condition result in failure to see distance object but you can view close objects.

Primary prevention: measures focus on the prevention of health conditions. Hand washing is a technique to reduce the onset and spread of infection and is considered a primary prevention measure. Secondary measures include those that screen for health problems such as a mammogram. Completing a full course of a prescribed antibiotic is a secondary measure.

Following up with the health care provider after an acute illness would be a tertiary measure or one that would return a client to a previous level of functioning.

Primary prevention focuses on general health promotion and prevention of injuries.

Prostate cancer: the American Cancer Society recommends that the PSA test be offered and conducted every year beginning at age 50.

The test used to screen for prostate cancer is Prostate Specific Antigen (PSA).

Both the incidence and death rates from lung and prostate cancers in the African-American population are higher than for any other racial group.

Protamine sulfate: The antagonistic agent for low molecular weight heparin is protamine sulfate.

Phenylketonuria: There is an increased risk of producing another child with phenylketonuria and mental retardation if the mother is not on a low-phenylalanine diet during pregnancy.

It is recommended that the client follow a low-phenylalanine diet before becoming pregnant.

Pulmonary artery wedge pressure: The normal pulmonary artery wedge pressure is between 8 to 12 mm Hg.

Pulmonary function tests measure how well the lungs are functioning.

Pulmonary function tests do not determine the amount of oxygen that is in the lungs.

Pyloric stenosis: The prognosis is good for babies who have surgery for pyloric stenosis. The infant is usually taking fluids within a few hours after surgery and will be discharged tolerating full-strength formula within 24 hours.

R

Raynaud's disease: Symptoms of Reynaud's disease includes coldness, pain, and pallor of the fingertips and toes which can also affect the tip of the nose.

Respirations: Normal respiratory rate in adolescents and adults is 12-20 breaths per minute.

Respiratory syncytial virus: The child who is diagnosed with respiratory syncytial virus should be isolated to minimize the spread of infection to other clients.

Rheumatic fever: Evidence supports a strong relationship between infections with Group A streptococci and subsequent rheumatic fever (usually within 2 to 6 weeks).

Rifampin: Orange colored feces and urine are common in persons taking rifampin.

1) **Rubella vaccine** May be given to a mother 2weeks after birth.

S:

Salicylates Overdose: High doses of salicylates raise metabolic rate and cause the person to be warm and flushed.

Initially the person may go into metabolic acidosis.

They then hyperventilate to compensate.

The patient is likely to hyperventilate and be flushed.

The patient will have an increased metabolic rate which cause an elevated temperature.

Scabies is an itchy skin condition caused by a tiny, eight-legged burrowing mite called *Sarcoptes scabiei.* The presence of the mite leads to intense itching in the area of its burrows.

Self-breast examination: Monthly, 5-7 days after menstruation

Spinal cord injury- C-2 cervical spine injury: The client with a C-2 cervical spine injury is at risk for acute respiratory distress because of the level of the spinal cord injury. The nurse should ensure adequate airway and ventilator support for this client. The client will not be able to participate in deep breathing and coughing because of paralysis of respiratory muscles.
Spinal injury at the C-2 level results in quadriplegia. While the client will experience all of the problems (i.e. response to stimuli, bladder control, respiratory function, muscle weakness identified, respiratory assessment is a priority.

Question 102

A client has been admitted to the coronary care unit with a myocardial infarction. Which

C-5: Injuries above C-5 affect the nerves controlling the diaphragm and breathing.

C-7 a person who has a C-7 injury will be a quadriplegic and would not be able to move her arms and feed herself. **A person who has a C-7 injury will be a quadriplegic and would not be able to move her arms and feed herself. A person who had a C-7 injury should be able to breathe independently.**

Spontaneous abortion: pregnancy should be delayed for at least 2 months to allow sufficient time for healing.

Streptomycin: Renal function tests such as BUN and serum creatinine are essential in persons who are receiving streptomycin therapy.

Streptomycin can cause eighth cranial (auditory) nerve damage (ototoxicity).

Streptomycin injections will be given daily for 2 to 3 months, then reduced to 2 or 3 times a week for TB treatment.

Streptomycin is not systemically absorbed when taken orally.

Suicide: more women attempt suicide compared to men.
More men succeed in committing suicide since they often use suicide means with high lethality.
Depression and giving away of significant personal belongings are regarded as signs of impending suicide.

Sucralfate: Sucralfate significantly decreases the absorption of medications such as digoxin, cimetidine, fluoroquinolone antibiotics, ketoconazole, l-thyroxine, phenytoin, quinidine, ranitidine, tetracycline, and theophylline. If any of these drugs is prescribed to the client, the sucralfate must be scheduled two hours after giving the other drugs to ensure that they are fully absorbed before sucralfate is administered.

Sulfa drugs: i.e. Gantrisin: The person should stay out of the sun when taking Gantrisin,

T:

Tachypnea with central cyanosis: Tachypnea with central cyanosis when crying are newborn assessment findings consistent with congenital heart defects.

Testicular self-examination: In performing a testicular self-exam, the client supports one testicle in one hand and palpates it with the other. A normal testicle has the consistency of a hard-boiled egg without the shell.
Incidence of testicular cancer in Caucasians is higher than African-Americans.
It is best to do a testicular self-examination when having a warm bath or shower. The warm water relaxes the scrotum and allows the testicles to drop in the sac.

Transient ischemic attacks: Temporary interruption of blood supply to part of the brain.
May be early warning sign of CVA.
Treated with anticoagulants.

Tetracycline: can cause gray tooth syndrome in children,
when given to children under 8 years of age, or to pregnant women in the last trimester.

Tetralogy of Fallot: After surgery to correct Tetralogy of Fallot, infective endocarditis prophylaxis is required until 6 months after corrective surgery. The nurse should instruct the parents to continue with antibiotic therapy for at least 6 months post procedure

Tonsillectomy: Surgical removal of the tonsils is often recommended when children have recurrent throat infections.

Removal of the adenoids is suggested with recurrent ear infections.

Toxoplasmosis: Cat manure is a possible source of toxoplasmosis.

Tracheoesophageal fistula: In an infant with tracheoesophageal fistula, the nurse is most likely to assess constant drooling in addition to abdominal distention, periodic choking, and clinical symptoms of aspiration.

Tracheostomy: the purpose of a tracheostomy is to provide more controlled ventilation and ease removal of secretions the client is unable to handle.

Before the procedure is done the nurse should establish means of postoperative communication.
The prep of the neck area is usually done by the physician who performs the tracheostomy.

Thrombophlebitis: Estrogen increases the hypercoagulability of the blood and increased the risk for development of thrombophlebitis

T-tube: The T-tube post-cholecystectomy should be draining an average of 20 ml/hr.
If the client's tube is not draining a sufficient amount, the nurse should place the client in the Fowler's position to enhance drainage.

Tuberculosis (TB): The best test to rule out TB is Chest X-ray.

Usually sputum becomes negative for acid-fast bacilli in about two weeks. Isolation is then discontinued.

Turning and repositioning: When turning and repositioning a client, the appropriate pattern should be lateral — supine — lateral.

U

Urine output: Urine output should be at least 30ml per hour.

Ultrasound: An ultrasound shows not only the location of the placenta, but also the presentation, viability, and number of fetuses; it may even be used to determine gestational age.

V:

Vegetarian: client should add additional services of tofu and beans into the diet each day to increase protein intake. These are two good sources of vegetable-based protein and will improve wound healing.

Vitamin K: Because the newborn lacks sufficient coagulation factors, vitamin K is administered prophylactically to newborns to stimulate the production of clotting factors.

W

Weight: By the end of the first year of life, the client should triple the birth weight.

Zidovudine (AZT): The medicine should be taken on an empty stomach.

Persons who are taking zidovudine (AZT) may need transfusions.

Over the counter medications such as acetaminophen should not be taken when taking zidovudine.