NUR 267 Tests 2

Meg-Surg Review

1. Acute Coronary Syndrome
	* Nursing management for a pt with a MI should focus on pain management and ↓ myocardial oxygen demand.
		+ Fluid status should be closely monitored
	* Nitroglycerin- produces peripheral vasodilation that will ↓BP; reduces myocardial oxygen consumption and demand.
		+ Correct administration- immediate administration, subsequent doses taken 5 minutes intervals as needed, for a total dose of 3 tablets.
			- Sublingual tablets appear in the bloodstream within 2-3 minutes and is metabolized within 10 minutes.
		+ ST elevation indicates injury to the myocardium, which may benefit from nitroglycerin.
		+ H/A is a common symptom- can be alleviated with aspirin, Tylenol, Advil
			- Lying flat will increase blood flow to the head and may increase pain and exacerbate other symptoms, such as SOB
	* Infarction of the papillary muscle is a potential complication of an MI causing ineffective closure of the mitral valve during systole.
		+ Mitral regurgitation results when the left ventricle contracts and blood flow backward into the left atrium, which is heard at the fifth intercostal space, midclavicular line.
		+ The murmur worsens during expiration and in the supine or left-side position.
	* Morphine acts as an analgesic and sedative
		+ It reduces myocardial oxygen consumption, BP and HR.
		+ Reduces anxiety and dear
		+ Can depress respirations- but may lead to hypoxia.
	* Low urine output and confusion are signs of ↓ tissue perfusion.
		+ Orthopnea is a sign of left-sided heart failure.
		+ Crackles, edema, and weight gain should be monitored closely.
		+ With A.Fib there is a loss of atrial kick, but the BP and HR are stable.
	* Thrombolytic drugs are administered within the first 6 hours after onset of an MI to lyse clots and reduce the extent of myocardial damage.
	* PVC’s are characterized by a QRS of longer than 0.10 second and by a wide, notched, or slurred QRS complex.
		+ There is no P wave related to the QRS complex and the T wave is usually inverted.
		+ Are often the precursor of life-threatening arrhythmias, including ventricular tachycardia and ventricular fibrillation.
		+ An occasional PVC is not considered dangerous but if PVC’s occur at a rate > 5-6 per minute in the post-MI client.
		+ 6 PVC’s per minute is considered serious and usually calls for ↓ ventricular irritability by administering medications such as lidocaine.
	* Metopropol is indicated in the treatment of hemodynamically stable clients with an acute MI to reduce cardiovascular mortality.
		+ Cardiogenic shock causes severe hemodynamic instability and a beta blocker will further depress myocardial contractility.
		+ ↓ CO will impair perfusion to the kidneys
	* Dobutamine will improve contractility and ↑ the CO that is depressed in cardiogenic shock.
	* Oliguria occurs during cardiogenic shock because there is reduced blood flow to the kidneys.
		+ Typical signs of cardiogenic shock induce low BP, rapid and weak pulse, decreased urine output, and signs of diminished blood flow to the brain, such as confusion and restlessness.
	* MI interferes with or blocks blood circulation to the heart muscle.
		+ ↓ Blood supply to the heart muscle causes ischemia, or poor myocardial oxygenation.
		+ Diminished blood or lack of oxygen to the cardiac muscle results in ischemic pain or angina.
	* Sinus tachycardia is characterized by normal conduction and a regular rhythm, but with a rate of >100bpm.
	* Furosemide (Lasix) is a loop diuretic that acts to ↑ urine output.
		+ Administered IV- diuresis begins about 5 minutes and reaches its peak within 30 minutes
	* Dietary principles in the acute phase of MI includes avoiding large meals
		+ Fluids are given according to the client’s needs.
		+ Sodium restrictions may be prescribed.
		+ Cholesterol restrictions may also be prescribed.
			- Low cholesterol foods-Pasta, tomato sauce, salad, and coffee
			- High cholesterol foods- Hamburgers, milkshakes, liver, and fried foods
	* Atorvastatin is a medication to reduce LDL and decrease risk of CAD.
	* CRP is a marker of inflammation and is elevated in the presence of cardiovascular disease.
	* The thrombolytic agent t-PA administered IV, lyses the clot blocking the coronary artery.
		+ Most effective when administered within the first 6 hours after onset of MI
		+ Cardiac arrhythmias are commonly observed with administration of t-PA.
		+ Hypotension is commonly observed with administration of t-PA
		+ A history of cerebral hemorrhage is contraindication to administration of t-PA.
	* ACSL recommends that 2 IV lines be inserted in one or both the antecubital spaces.
	* Crackles are auscultated over fluid-filled alveoli.
		+ Bronchospasms and airway narrowing generally are associated with wheezing sounds
	* Detection of myoglobin is on diagnostic tool to determine whether myocardial damage has occurred.
		+ Myoglobin is usually detected about 1 hour after a heart attack is experienced and peaks within 4-6 hours after infarction.
	* Cardiac catheterization is done in clients with angina primarily to assess the extent and severity of the coronary artery blockage.
	* Because of contrast medium used in PTCA acts as an osmotic diuretic, the client may experience diuresis with resultant fluid volume deficits after the procedure.
		+ Potassium levels must be closely monitored
	* Arteriosclerosis
		+ Risk factors
			- Family history
			- Cigarette smoking
			- Hypertension
			- High blood cholesterol level
			- Male
			- DM
			- Obesity
			- Physical inactivity
	* Nifedipine-
		+ Should inspect the gums daily to monitor for gingival hyperplasia.
2. **Heart Failure**
	* Captopril- is a ACE inhibitor
		+ Side effect- hyperkalemia
	* Coumadin- anticoagulant
		+ Treats A.Fib. and ↓left ventricular ejection fraction to prevent thrombus formation and release of emboli into the circulation.
	* Digoxin
		+ Cardiac glycoside with positive inotropic activity- causes ↑ strength of myocardial contractions and thereby ↑ output of blood from the left ventricle.
		+ toxicity
			- Anorexia, nausea, and vomiting, visual disturbances (blurred vision, halos, seeing yellow spots), abdominal pain,
				* A low potassium level predisposes the client to digoxin toxicity.
	* When the heart begins to fail, the body activates three major compensatory mechanisms
		+ Ventricular hypertrophy
		+ Renin-angiotensin aldosterone system
		+ Sympathetic nervous stimulation
	* Signs of pulmonary edema are identical to those of acute HF.
		+ S/SX: usually appear in the respiratory system and include coarse crackles, severe dyspnea, and tachypnea.
		+ PRIORITY to assess BP- because people with pulmonary edema typically experience severe hypertension
	* A ↓ CO occurs from a ↓ SV with impaired contractility in systolic heart failure. This impairs peripheral and renal perfusion.
		+ The impaired perfusion and impaired oxygenation cause the symptoms of activity intolerance.
	* Sitting almost upright in bed with the feet and legs resting on the mattress decrease venous return to the heart, thus reducing myocardial workload.
		+ Sitting position allows maximum space for lung expansion.
	* ↑CO is the main goal of therapy for the client with HF or pulmonary edema.
		+ Pulmonary edema is an acute medical emergency requiring immediate intervention.
	* Characteristics of A.Fib. include
		+ ↑ HR (>100)
		+ Irregular rhythm
		+ No definite P waves on the ECG
		+ Occurs when the SA node no longer functions as the heart’s pacemaker and impulses are initiated at sites within the atria.
	* Canned food, tomato juice-high in sodium3
	* Hypokalemia- is a side effect of loop diuretics
		+ Bananas, dried fruit, and oranges-high in potassium.
		+ Angel food cake, yellow cake, and peppers – low in potassium
	* A normal apical impulse is found over the apex of the heart and is typically located and auscultated in the left 5th intercostal space.
	* Ankle edema suggests fluid volume overload.
		+ Assess RR, lungs sounds, SpO2
	* Heart failure
		+ Obtain daily weight
		+ Call MD if the pt gains 2 lbs. or more
3. **Valvular Heart disease**
	* A complication of valvuloplasty is emboli resulting in a stroke.
		+ Some degree of mitral regurgitation is common after the procedure.
	* Pt’s scheduled for cardiac cath. 🡪 it is important to check for iodine sensitivity, verify written consent, need to be NPO for 6-18 hours before the procedure.
	* Post-op🡪 assess circulatory status , puncture site,
	* Most Pt’s with mitral stenosis have a history of rheumatic fever or bacterial endocarditis.
	* Lidocaine🡪 side effects
		+ Dizziness, tinnitus, blurred vision, tremors, numbness, and tingling of extremities, excessive perspiration, hypotension, seizures, and coma.
	* Mitral valve replacement-
		+ Management of pain is priority
		+ HGB, HCT, should be assessed to evaluate blood loss.
		+ ↑ PTT, INR, and ↓ platelet count increases the risk for bleeding.
			- The pt may require blood products depending on the labs.
	* In an immobilized pt, calcium leaves the bone and concentrates in the extracellular fluid. When large amounts of calcium passes through the kidneys, calcium can precipitate and form calculi.
		+ Ensure a liberal fluid intake
		+ Diet rich in acid should be provided to keep the urine acidic, which increases the solubility of calcium.
	* Most cardiac Pt’s have a median sternotomy incision, which take about 3 months to heal.
		+ Avoid heavy lifting, perform muscle reconditioning exercises, and using caution when driving.
		+ Activities should be gradually resumed on discharge.
4. Hypertension-
	* + Considered the silent killer for adults.
		+ Consistent systolic blood pressure level greater than 140mmhg and a consistent diastolic blood pressure level greater than 90mmhg.
		+ Compliance is the most critical element of hypertension therapy.
		+ In most cases, pt requires life-long treatment, and their HTN cannot be managed successfully without drug therapy.
		+ Stress management is an important component of HTN therapy.
		+ Losing weight may be necessary an d will contribute to lower BP
		+ Renal disease & renal insufficiency is a complication of HTN
	* Beta blockers🡪 ↓ HR, contractility and afterload, which leads to ↓ in BP
		+ The pt may have ↑ in fatigue at first
	* Catapres- central acting adrenergic antagonist.
		+ Reduces sympathetic outflow from the central nervous system.
		+ Dry mouth, impotence, and sleep disturbances🡪 possible side effects.
	* Orthostatic hypotension
		+ Changing positions slowly and avoiding long periods of standing may limit the occurrence of orthostatic hypotension.
		+ The nurse should assess the BP in all three positions (lying, sitting, and standing) at all routine visits.
	* Atenolol- beta adrenergic antagonist
		+ Management of hypertension
		+ Sudden discontinuation of this drug is dangerous b/c it may exacerbate symptoms.
	* Propranolol- beta adrenergic antagonist
		+ Reducing heart rate, ↓ myocardial contractility, and slowing conduction
5. Permanent Pacemaker
	* Pacemaker placement
		+ Must teach the pt how to take and record his pulse daily.
		+ Avoid lifting the operative side arm above should level for 1 week post-insertion.
		+ It takes up to 2 months for the incision site to heal and full range of motion to return.
		+ Maintaining cardiac conduction stability to prevent arrhythmias is a priority immediately after artificial pacemaker implantation.
	* Transcutaneous pacemaker therapy provides an adequate HR to a pt in an emergency situation.
		+ Transcutaneous pacemaker is temporary until a transvenous or permanent pacemaker can be inserted.
		+ Defibrillation and a lidocaine infusion are not indicated for the treatment of third degree heart block.
6. Pt requiring CPR
	* Transcutaneous pads should be placed on the client with third degree heart block.
		+ Hemodynamic stability and pulse should be check prior to calling a code or initiating CPR.
	* Defibrillation is performed for ventricular fibrillation or ventricular tachycardia with no pulse.
		+ The presence of a pulse determines the treatment for ventricular tachycardia.
		+ It is also important to assess the HR and LOC
	* Cardioversion may be used to treat hemodynamically unstable tachycardia’s
		+ Preparing for Cardioversion
			- Conducting agent is place between the skin and paddles
			- Make sure to call CLEAR
			- Each paddle is placed directly on the conductive pads
			- Applying about 20-25lbs. of pressure on each paddle is recommended
			- Must document the amount of electrical current delivered and the resulting rhythm.
	* Pupillary reaction is the best indication of whether oxygenated blood has been reaching the pt’s brain.
		+ Pupils that remain widely dilated and do not react to light probably indicate that serious brain damage has occurred.
	* Amniodarone
		+ Treats PVC, ventricular tachycardia [with a pulse], atrial fibrillation, and atrial flutter.
	* During CPR the liver is the organ most easily damaged because of its location [near the xiphoid process]
	* Adult’s sternum must be depressed 1.5-2inches with each compression to ensure adequate heart compressions.
		+ If the chest wall is not rising with rescue breaths the head should be repositioned to ensure that the airway is adequately opened.
	* After a pt is without cardiopulmonary function for 4-6 minutes, permanent brain damage is almost certain.
	* The Heimlich maneuver should be administered only to a victim who cannot make any sounds due to airway obstructions.
		+ If they can whisper or cough, some air exchange is occurring and 911 should be called
		+ The thrusts should be delivered below the xiphoid process but above the umbilicus,
			- To minimize risk of internal injuries.
	* ALWAYS, ALLWAYS check your patient!!

Chapter two

1. Peripheral vascular disease
	* An ankle brachial index of 0.65 suggest moderate arterial vascular disease in a pt experiencing intermittent claudication [pg. 357]
		+ The ankle-brachial index is based on the ratio of the ankle systolic BP to arm systolic BP.
		+ It allows one to quantify the degree of arterial stenosis.
	* The nurse should always check pedal pulse and tibial pulse; ensure adequate perfusion to the lower extremities with a drop in blood pressure.
	* Maintaining skin integrity is important in preventing chronic ulcers and infections.
	* Peripheral blood flow
		+ Unidirectional manner, the blood flow involves the differences in pressure between the arterial and venous systems.
		+ The force of the contraction of the heart and resistance of vessels influence flow, but it is the pressure differences that control blood flow.
	* Blood pressure is the highest in the aorta as the blood is being ejected out of the left ventricle into the aorta.
	* High serum lipid levels are associated with an ↑ incidence of PVD
	* Claudication
		+ The discomfort a person experiences when oxygen demand in the leg muscle is greater than the supply
		+ The pain is a result of tissue hypoxia in the working muscle.
		+ Symptoms include: aching, cramping, and weakness.
	* As people age, the accumulation of collagen in the intima of the blood vessels result in the vessels becoming stiff and less flexible.
	* ↓ Blood flow is a common characteristic of all PVD.
		+ When the demand for oxygen to the working muscle becomes greater than the supply, pain is the outcome.
		+ Slow blood flow throughout the circulatory system may suggest pump failure.
	* In PVD, ↓ blood flow can result in ↑ venous pressure.
		+ The ↑ in venous pressure results in an increase in capillary hydrostatic pressure, which cause a net filtration of fluid out of the capillaries into the interstitial space, resulting in edema.
	* Reduction of blood flow to specific areas results in ↓ oxygen and nutrients.
		+ As a result the skin will appear mottled. Loss of hair and cool, dry skin are other signs
	* When PP are not palpable the nurse should obtain a Doppler ultrasound
	* A ↑ LDL cholesterol concentration has been documented as a risk factor for the development of atherosclerosis.
		+ LDL is deposited in the intima of the blood vessels.
	* Coldness in the feet and ankle is consistent with complete arterial obstruction
		+ Other expected findings
			- Paralysis and pallor
			- Aching pain
			- Burning sensation
			- Numbness or tingling
	* Anxiety stimulates the SNS, which results in the secretion of epinephrine, angiotensin and serum proteins that cause vasoconstriction in the arteries of the peripheral circulatory system.
	* Activity intolerance r/t decreased blood supply and pain is a common problem with clients experiencing claudication.
	* Priority Post-op care for a PVD pt who has had femoral popliteal bypass graft
		+ Peripheral pulses
		+ Incision site
		+ Urine output
		+ Postoperative pain
	* Decreasing venous congestion in the extremities is a desired outcome for clients with heart failure
		+ Elevate the legs above the heart to achieve this goal.
	* Gangrene
		+ Blackened decomposing tissue that is devoid of circulation.
		+ Chronic ischemia and death of the tissue can lead to gangrene in the affected extremity
		+ Injury, edema, and decreased circulation lead to infection, gangrene, and tissue death.
		+ Atrophy is the shrinking of tissue, and contraction is joint stiffening secondary to disuse.
	* Arteriogram
		+ Involves injecting a radiopaque contrast agent directly into the vascular system to visualize the vessel.
			- It usually involves CT scanning.
		+ Pt’s may have an immediate or a delayed reaction to the radiopaque dye.
			- Treatment may involve administering oxygen and epinephrine.
	* The pt is a high risk for skin breakdown in the lower extremities r/t the edema and to remaining in one position, which increase capillary pressure.
	* Pt’s with PVD should avoid iodine or OTC medications, heating pads, crossing the legs, and should wear leather shoes.
		+ A heating pad can cause injury, and can be difficult to heal because of the decreased blood supply.
		+ Crossing the legs can further impede blood flow
	* PVD has bypass surgery
		+ Maintaining circulation in the affected extremity after surgery is the focus of care
		+ The graft can become occluded, and the client must be assessed frequently to determine whether the graft patency.
			- Preventing infection and relieving pain are important but are secondary to maintaining graft patency.
	* Elastic stockings are used to promote circulation by preventing pooling of blood in the feet and legs.
		+ The stockings should be applied in the morning before the pt gets out of bed
		+ Should be removed every 8 hours and the pt should elevate the legs for 15 minutes and reapply the stockings.
	* If surgery [artery bypass surgery] is scheduled the nurse should avoid venipuncture in the affected extremity.
		+ The goal is to prevent unnecessary trauma and possible infection in the affected arm.
		+ Disruptions in skin integrity and even minor skin irritations can cause the surgery to be cancelled.
2. PVD having an amputation
	* Slow steady walking is a recommended activity for clients with PVD because it stimulates the development of collateral circulation.
	* The level of amputation commonly cannot be accurately determined until surgery, when the surgeon can directly assess the adequacy of the circulation of the residual limb.
	* After surgery
		+ Leg crossing is contraindicated because it causes adduction of the hips and decreases the flow of blood into the lower extremities.
			- This may result in increased pressure in the graft in the affected leg.
			- To avoid contractures, which can delay rehabilitation, elevation of the surgical limb is contraindicated.
		+ The purpose of wrapping the stump is to shape the residual limb to accept prosthesis and bear weight.
			- The compression bandaging should be worn at all times for many weeks after surgery and should be reapplied as needed to keep it free of wrinkles and snug.
			- The dressing should be changed daily to allow for inspection of the stump incision.
			- The stump should not be elevated on pillows because it will contribute to the formation of flexion contractures.
				* Contractures will prevent the pt from wearing a prosthesis and ambulating.
	* Nicotine cause vasospasms and impedes blood flow
	* Diltiazepam is a calcium channel blocker
		+ The primary use is to promote vasodilation and prevent spasms of the artery
			- As a result of the vasodilation oxygen and nutrients can reach the muscle and tissue
	* Trental
		+ Used for intermentant claudication
		+ Therapeutic effect is to increase blood flow
		+ Can potentiate the effect of theophylline and increase the risk of theophylline toxicity
			- The nurse should monitor those levels
		+ Can interact with heparin
			- Monitor PTT if pt is on heparin
		+ Angina is an adverse reaction
			- should rest until pain subsides
			- doctors should be called (priority)
3. clients with Buerger’s disease
	* thromboangitis obliterans
		+ Non-atherosclerotic inflammatory vasoocclusive disorder
		+ Bc of the inflammation, a common complication is thrombus formation and potential occlusion of the vessel
			- Embolus is a potential risk if a thrombus has developed
		+ Inflammation of the immediate small arteries and vein is involved in the disease process
	* Zyban
		+ A non-nicotine medication
		+ Used to promote smoking cessation
	* Characterized by inflammation and fibrosis of arteries, veins, and nerves
	* WBC infiltrate the area and become fibrotic which results in occlusion of the vessel
		+ s/sx
			- slowly developing claudication, cyanosis, coldness, and pain at rest
4. vasospasctic disorder
	* Raynaud’s phenomenon
		+ Routine follow up to monitor symptoms and to assess for the development of connective tissue or autoimmune disease associated with Raynaud’s
		+ Form of intermittent arteriolar vasoconstriction that results in coldness, pain, pallor of the finger tips toes and the tip of the nose, Rebound circulation with redness and pain
		+ Reserpine
			- Adverse reaction is orthostatic hypotension
		+ Pt should prevent vasoconstriction by covering affect parts when in cold environments
			- The nurse can teach the client to rewarm exposed extremities by using warm water or placing them next to the body(such as under the armpits)
		+ More common in women
		+ Initially the vasoconstriction affect produces pallor, or a whitish color, followed cyanosis and finally turn red
		+ Decreased perfusion from vasospasm induces color change in the extremity
		+ Extreme changes in temperature can precipitate a vasospastic episode and should be avoided
			- Wear gloves when handling foods and ice
			- The client should emerge the involved extremity into warm water during an episode to promote vasodilation and relaxation of the small arteries that are in spasm
			- Living in cold climates too
			- Should wear loose warm clothing
			- Vibrate equipment and typing can contribute to vasospasms
		+ Calcium channel blockers are first line drugs when other therapies are ineffective
		+ Cardizem reduces finger numbness
			- Also used to treat A. Fib
		+ Sympathectomy is schedule only after all other treatments fail
5. Thrombophlebitis and embolism formation
	* Acute arterial occlusion is a sudden interruption of blood flow
	* Acute pain, loss of sensory and motor function and a pale mottled numb extremities are the most and observable changes that indicate a life threatening interruption of tissue perfusion
	* Venous stasis can increase pain
		+ Proper positioning helps promote venous drainage, decrease swelling and decreases pain
		+ Fluids are encouraged
		+ Massage is discouraged
	* Embolus
		+ Inspect extremity for color, temp changes
			- Tissue perfusion
		+ Performing active ROM to help with blood flow
		+ DVT
			- commonly associated with venous stasis
			- Thrombolytic agents used in pt with hx of thrombus formation, CVA, and chronic Fib
			- Check urine for bright red blood and dark smoky color
			- Daily walking
			- Performing foot and leg exercises
			- Prevention best treatment
			- Avoid surface bumps??
		+ High risk with pt on BEDREST
		+ Increase the risk for pulmonary embolus
	* Inflammation of a vein
	* Symptoms 🡪 pain, swelling, deep muscle tenderness
	* 3 factors that contribute to the formation of venous thrombus and thrombophlebitis
		+ Prolonged pressure, Hypercoagulability of the blood, Venous stasis
			- Turn pt q 1-2 hour
			- Passive/active ROM
			- Use TED hose
			- Early ambulation
			- Adequate fluid intake
			- Anticoagulant
				* Garlic and ginger increase bleeding time and should be avoided
	* Risk factors
		+ Surgery, obesity, birth control,
	* Varicose veins
		+ s/sx
			- tortuous descended vein (where blood has pulled)
			- to prevent pulling, the client should not stand in one place for long periods of time
			- should wear supportive stockings
			- prevention is KEY
	* emergency embolectomy
		+ post—op
			- monitor pulses
			- inspect dressing
			- regulate IV infusion
			- administer pain med
			- draw blood for lab
6. Aneurysm
	* sharp midsternal pain could indicate leakage or rupture
		+ IV should be inserted for immediate volume replacement
	* assess VS, LOC and pain
	* Contact physician
	* Thoracoabdominal aneurysm
		+ Complication is spinal cord in jury
		+ Assess LOC below the site of aneurysm repair
	* Goal is to prevent rupture
		+ Place in semi-fowlers
		+ Quite environment
		+ Systolic BP is maintained at the lowest level the pt can tolerate
	* When ready for surgery place in recumbent position to promote circulation
	* Cardiac tamponade
		+ Life threatening complication of dissecting thoracic aneurysm
	* Sudden painful tearing sensation is typically associated with the sudden release of blood and the client may experience cardiac arrest
	* After repair
		+ Potential for an alteration in renal perfusion manifested by a decreased urine output
	* Morphine
		+ Complication is a paralytic ileus
7. Stasis ulcers
	* Underlying patho
		+ Result of inadequate oxygen and other nutrients to the tissue bc of edema and decreased circulation
	* Increase oxygen and improve tissue integrity
	* The result of chronic venous stasis is swelling and superficial varicose veins
	* Diuretics will decrease the swelling and thus improving capillary circulation
8. Peripheral arterial occlusive disease
	* ABI test
	* Revascularization procedure for arteriosclerosis
		+ Keeping the involved extremity at or below the body horizontal plane will facilitate tissue perfusion and prevent tissue damage
	* Avoid placing the extremity on a hard surface such as a hard mattress to prevent pressure ulcers
	* Handle the involved extremity gently to prevent friction or pressure
	* Weak or absent femoral pulses are symptomatic of aortic iliac disease

Chapter 3

1. The client with red blood cell disorder
	* Bone marrow aspiration (needle)
		+ Informed consent
		+ Position in side lying with affected side up
		+ Clean skin with antiseptic solution (beta dine) before numbing and then collects the specimen
		+ Ice to biopsy site
	* Iron deficiency anemia
		+ Taking oral iron meds
			- n/v are adverse affects
				* ginger will decrease the nausea
			- take on empty stomach
			- stool softeners not used in IDA instead prevent constipation by eating a high fiber diet
		+ eggs high in iron also organ and muscle meat, shellfish, shrimp, and tuna, and rich whole grains, fortified cereals and bread, legumes, nuts, dried fruit🡪 apricot, raisins, and dates., beans, oatmeal and sweet potatoes
		+ dark green leafy vegetables (broccoli and Brussels sprouts) and citrus fruits are good sources of vitamin C
		+ coffee and tea decreases absorption of iron
		+ cooking in iron cookware especially acid based foods such as tomatoes adds iron to the diet
		+ To assess the pt’s activity intolerance get the pt to tell the nurse what they could do six months ago and what they can do now.
	* diseases transferred via blood transfusion
		+ Epstein Barr
		+ HIV
		+ CMV (cytomegalo virus)
	* Good sources of vitamin B12
		+ Meats and dairy products
	* Normal range for folic acid – 1.8-9 mg/ml
	* Normal range for vitamin B12 – 200-900 pg/ml
	* Drugs such as methotrexate, oral contraceptive, anti-seizure drugs and alcohol affect the absorption of folic acid
	* Pernicious anemia
		+ Lack of intrinsic factor which results from atrophy of the stomach wall
		+ Without the intrinsic factor, vitamin B12 cannot be absorbed in the small intestine
		+ Vitamin B12 combines with the intrinsic factor in the stomach and is then carried to the ileum where it is absorbed into the blood stream
		+ Must be administered by a deep IM root. Preferred sites are the ventral gluteal and dorsal gluteal.
			- Laying the pt on the stomach with toes pointed inward promotes comfort with ventral gluteal.
		+ S/SX🡪 numbness and tingling r/t loss of intrinsic factor and cognitive problems and depression.
		+ Urinary B12 Levels🡪Measured after the injection of radioactive vitamin B12
			- 24-48 hour urine specimen is collected after administration of an oral dose of radioactively tagged B12 and injection of non-radioactive B12
			- If it is healthy it is excess is excreted in the urine.
			- If intrinsic factor is missing it is excreted in the feces.
			- Do not take laxatives before test
			- NPO 8-12 hours before test.
		+ Water soluble vitamin
	* G6PD deficiency anemia
		+ X-linked recessive
		+ African Americans
		+ Self limited as soon as the causative agents withheld
			- Sulfa drugs
			- ASA
			- Thiazide diuretics
			- Vitamin K
	* Aplastic anemia
		+ Pt are severely immunocompromised and at risk for infection and possible death related to bone marrow suppression and pancytopenia
			- Strict aseptic technique
			- Reverse isolation
		+ Pt is at risk for bruising and bleeding tendencies
		+ Assessment for potential of bleedings take priority but I&O is also important
	* Hemolytic anemia
		+ RBC destruction precipitated by medication such as cephalosporin’s sulfa drugs, rifanpin methyldopa, procainamide, quinidine, and thiazides.
	* Purpura
		+ Characterized by hemorrhages in the skin, mucous membranes, internal organs, and other tissue.
		+ Numerous petechiae result in a reddish, bruised appearance
	* Administering pack red blood cells
		+ Stay with pt for 15 minutes
		+ Receiving two units
			- Two qualified people such as two RN or MD and RN to compare the name on ID and blood bag
			- One unit should infuse in four hours are less to avoid the risk of septicemia.
			- VS assessed before blood transfusion begins and after first 15 minutes
				* Then every 1 hour until complete
		+ Reactions
			- Stop the transfusion
			- Keep IV open with NS infusing
			- Notify doctor and blood bank
			- Collect blood and urine samples to send to the lab
	* Sickle cell anemia
		+ Pt needs to drink plenty of fluids when outside in hot weather to avoid becoming dehydrated
		+ Avoid high altitudes such as mountains, where oxygen levels are low and may precipitate a crisis.
		+ Pregnancy increases the risk of a crisis
		+ Can fly on commercial airlines
	* Epigen
		+ Stimulate the production of the RBC and causes HCT to rise
		+ Elevation of HCT causes the BP to increase🡪monitor BP
		+ Administered to decrease the need of a blood transfusion
		+ Should be administered through the IV line without any other medication to avoid a reaction.
		+ Monitor HCT levels for a rise of 4 points in two weeks🡪not good
		+ Can cause dizziness and H/A secondary to HTN
	* Macrocytic anemia
		+ Can result from a deficiency in vitamin B12 or vitamin C
			- Assess for peripheral neuropathy
			- Instruct the client in self care activities for their diminished sensation to heat and pain.
				* Using a heating pad at a lower heat setting
				* Making frequent checks to prevent against heat trauma.
2. Platelet Disorders
	* Protamin sulfate
		+ a dose of 0.5mg reverses a 100 unit dose of heparin in 20 minutes
		+ should be IV push slowly
		+ adverse effects
			- hypotension
			- dyspnea
			- bradycardia
			- anaphylaxis
	* Heparin
		+ Cephalosporin’s and PCN potentiate the effects
		+ Two nurses should check the dose because a dose error can cause hemorrhage
	* Platelet counts
		+ Platelet count of 30,000-50,000 will be susceptible to bruising with minor trauma.
			- Pad areas that the pt might hit may help prevent minor trauma
		+ Platelet count of 15,000-30,000 may result in spontaneous petechiae and bruising especially on the extremities.
			- May focus 🡪 Assess for new spontaneous petechiae.
			- When the count is lower than 20,000 the pt is at risk for spontaneous bleeding from the mucous membranes [oral, nasal, ear, and rectal] and intracranial bleeding.
				* Severe H/A occurs with intracranial bleed
		+ When the platelet count is less the 150,000 prolonged bleeding can occur with trauma, injury or straining [such as the valsalva maneuver]
		+ Semi-fowlers position [but should change positions to promote circulation
		+ Bag containing PLT needs to be gently rotated to prevent clumping
	* Idiopathic thrombocytopenia purpura
		+ Hallmark signs
			- Recent viral infection in a female pt between the ages of 20-30 with a history of SLE and an insidious onset of diffused petechiae.
			- It is important to ask if the pt recent menses has been lengthened or heavier.
		+ Treated with steroids
			- Prednisone
				* n/v, peptic ulcers are GI adverse effects of the prednisone so take with food
				* weight gain, retention of sodium and fluids with hypertension, cushinoid features, low serum albumin level, suppressed inflammatory processes with masked symptoms, and osteoporosis
				* diet high in protein, potassium, calcium and vitamin D is recommended
				* best exercises for females walking weight lifting
	* Thrombocytopenia
		+ Nurse should asses for cerebral bleeding by checking VS and performing neuro checks
	* Bufferin
		+ Contains ASA, anti –coagulant
		+ Ice pack on area promotes vasoconstriction
		+ Luke warm water promotes vasodilation
	* Bradycardia & decreased PaCO2 is a late symptom of hemorrhage
	* Splenectomy
		+ Deep breathing
		+ High risk for hypovolemia and hemorrhage
		+ Dressing should be checked often if drainage noted circle it to determine how fast bleeding is occurring
		+ NG placed to decrease abdominal distention
		+ Prone to infection
	* DIC
		+ Later signs
			- Severe shortness of breath, hypotension, pallor, petechiae, hematoma, orthopnea, hematuria, vision changes, and joint pain
			- Does not respond to Coumadin
			- Administer heparin
			- Replace depleted blood products
			- Internal bleeding
				* Causes dilation and distention as the blood collects in the peritoneal cavity
				* Tachycardia and hypertensive
3. WBC disorders
	* Increase fluids to prevent dehydration with a elevated temp
	* Enlarge spleen 🡪 avoid contact sports due to an increase risk for injury
	* Leukemia
		+ Manage and prevent infection
		+ Maintain skin integrity
		+ Prevent bleeding, monitor for bleeding
		+ Flowers, herbs, and plants should be avoided
		+ Needs to get out of bed to increase activity and improve tidal volume
		+ Acute myeloid leukemia (AML)
			- Bleeding and infection are major complications
		+ Chronic Myeloid Leukemia (CML)
			- Confusion and SOB
		+ Acute lymphatic leukemia
			- Peak at 4 years of age
			- Uncommon after 15 y/o
			- Risk for infection
			- Place in private room
		+ Chronic Lymphatic Leukemia
			- Unintentional weight loss, fever, night sweats, enlarged painful lymph nodes, spleen and liver
		+ Mucositis
			- Rinse mouth with saline or baking soda solutions – effective and moisten the mouth
			- Brush after each meal
	* Neutropenia
		+ Risk for infections
			- Bacterial of the respiratory and GI tract
		+ Most common source of infection is their own nonpathogenic normal flora
		+ May need to wear a AEPA filter mask
	* Bone marrow aspirations
		+ Hold pressure of the aspiration site for 5 to 10 minutes
		+ Recheck every 10 to 15 for bleeding
	* Combination chemo therapy is multiple drugs
4. Lymphoma
	* Hodgkin’s disease
		+ Signs
			- Painless enlarges cervical lymph nodes, tachycardia, weight loss, weakness, and fatigue, night sweats
			- Hepatomegaly is a late stage manifestation
		+ Sterile technique with lymph node biopsy
		+ A definite diagnosis is made if Reed Sternberg cells are found in the biopsy
		+ Herpes zoster are common in clients
		+ Mild anemia is common
		+ B symptoms
			- A temp > 100.4, perfuse night sweat, unintentional weight loss
			- More common in advanced stages
5. Shock
	* Priority intervention is correcting and maintaining adequate tissue perfusion
	* Hypovolemic shock
		+ s/sx
			- systolic BP less than 90
			- narrowing pulse pressure
			- tachycardia
			- Tachypnea
			- Cool, clammy skin
			- Decrease urine output
			- Mental status changes such as irritability and anxiety
	* Dopamine
		+ Slightly increase the HR and improves contractility to increase CO and improve tissue perfusion
		+ Continuous BP checks
	* Septic shock
		+ Warm, flushed skin, fever with restlessness and confusion, decreased BP with Tachypnea and tachycardia, and increased or normal urinary output, and N/V/D
		+ ARDS is a complication of

Chapter 4

1. Upper resp tract infection
	* Antihistamines
		+ Can cause drowsiness
	* Intranasal inhaler
		+ Important to close one nostril
		+ Should shave before use
		+ Should blow the nose before instilling the nose drops
	* Chronic sinusitis
		+ Take hot showers in the morning and evening to promote drainage
	* Rhinitis
		+ Determine triggers
	* Sudafed
		+ Adverse affects
			- Restlessness, dizzy, anxiety, insomnia, weakness, tachycardia, HTN, palpitations
2. Nasal surgery
	* Epitaxis
		+ Nose bleed
		+ Lean forward not back in sitting position
		+ Firm pressure to soft portion of the nose for 10 min
		+ Don’t swallow
		+ Bc of nasal packing blood may run down the throat
		+ Accumulation of blood in the stomach can cause n/v
	* Avoid valsalva maneuvers
	* Avoid aspirin 2 weeks before surgery
	* Post op
		+ Ineffective bleeding patterns rt nasal packing
		+ Applying cool compresses decreases swelling and pain
		+ After removing nasal packing pt should apply water soluble jelly to the nares to lubricate and promote comfort
3. Cancer of the larynx
	* Laryngectomy
		+ Freq suctioning to maintain patency
			- Do not suction for longer than 10 sec
			- Sterile cath each time
		+ Elevate the HOB 30- 40 degrees bc if decreases swelling and facilitates breathing
		+ Discharge instructions
			- Bedside humidifier is recommended
			- High fluid intake
	* Hoarseness for longer than 2 weeks is a sign of laryngeal cancer
		+ Assess for lump in the neck of throat, persistent sore throat, cough, ear ache, pain, and difficulty swallowing
	* Priority pt
		+ 85 w bacterial pneumonia, temp of 102.2, SOB
		+ 60 w chest tube 2 days post op, wanting pain meds
		+ 56 w emphysema schedule for med, in no distress
		+ 35 w suspected TB complaining of a cough
4. Pneumonia
	* Elevated HOB
	* Cough and deep breath
	* Risk factors
		+ Elderly
		+ Smoking
		+ URTI
		+ Malnutrition
		+ Immunosuppression
		+ Chronic illness
	* Priority assessment 🡪 breath sounds and cap refill
	* Sputum specimen before antibiotics
	* Aminoglycoside
		+ Increase the risk of acute tubular necrosis
			- Monitor Creatinine
	* Chest pain in pneumonia is generally caused by friction between the plural layers
	* Pain is more severe more inspiration than on expiration
	* Splinting of chest will decrease discomfort of coughing
	* Aspirin is administered
	* Colase is a stool softener (mild constipation)
	* Risk for dehydration bc of diaphoresis
5. TB
	* s/sx
		+ Anorexia and weight loss, fatigue, low grade fever, night sweats
	* Streptomycin
		+ Can cause hearing loss & vertigo, tinnitus, ataxia
	* Airborne, droplet
	* Combination drug therapy
	* PPD
	* Mantoux test
		+ Adm intradermal
		+ Positive = exposed
	* INH
		+ Interferes with birth control
	* TB can be controlled but never complete cured
	* Rifapin
		+ Hepatotoxic drug
		+ Cause urine to turn orange
6. COPD
	* Pursed lip breathing
		+ Promotes CO2 elimination
	* Co2 retention
		+ High CO2 causes flushing, drowsy and lethargic
	* High risk for resp infection
	* Will use a low flow oxygen supplement 1-2 liters
	* Cigarette smoking is the primary cause
	* Right sided heart failure is a complication
	* Diet
		+ High cal
		+ High protein
	* Theophylline
		+ Bronchodilator
7. Asthma
	* Meter dose inhaler
		+ MDI
		+ Deep breath and then hold breath for 10 sec
		+ Shake before use
		+ Tilt head slightly back
		+ Wait 1 – 2 min between puffs
		+ Rinse mouth
	* Acute attack
		+ Diminished or absent breath sounds indicating lack of air and impending resp failure
	* Albuterol
	* Corticosteroids
		+ Can lead to oral thrush
8. Lung cancer
	* Assess bilateral breath sounds for a pneumothorax (complication of central line insertion)
		+ Central line 🡪 chest x-ray to check placement
	* Lobectomy
		+ Malnutrition is a complication post op
		+ Assess pain management
	* Epidermoid cancer
		+ Involves the larger bronchi
		+ Associated w Heavy smoking
	* Crackling sensation on the skin surface is subQ emphysema
		+ Not unusual when you take a chest tube out
		+ If it progresses can be serious esp if the neck is involved
			- trach may be needed
	* chest surgery 🡪 raise affected arm over head
	* there should never be constant bubbling in the water sealed bottle
		+ normally the bubbling is intermittent
		+ notify doc
		+ removal of chest tube
			- a petroleum gauze is placed over the wound and covered with dry sterile dressing
9. chest trauma
	* Tension pneumothorax
		+ Unilateral, diminished, or absent breath sounds
		+ Tracheal deviation is an inconsistent and late finding
	* May lead to resp failure
	* Pneumothorax
		+ Collapse lung
		+ s/sx
			- sudden sharp chest pain, Tachypnea, tachycardia, anxiety and restlessness
		+ chest tube inserted to reinflate lung
10. ARDS
	* Prone position
	* Can cause renal failure & SUPERinfection
	* Major risk factor
		+ Hypovolemic shock
	* Hallmark sign of early ARDS
		+ Refractory hypoxemia
	* PaCO2 🡪 35-45
	* pH 🡪 7.35-7.45
	* PaO2 🡪 80-100
	* ET intubation & mechanical ventilation are required
		+ Checking placement of ET tube
			- Assess bilateral breath sounds
	* Risk factors
		+ Septic shock and GI aspiration

Chapter 5

1. Disorders of oral cavity
	* Fractured mandible
		+ Jaw will be wired
		+ Should always have wire cutters and suction equipment at bed side in case of resp distressed or they begin to cough or vomit
		+ Priority 🡪 AIRWAY
		+ Placed on the side with the head slightly elevated
	* Stomatitis
		+ Inflammation of the mouth
		+ Significant discomfort with impacts the ability to eat or drink
		+ Eat soft bland foods
		+ Avoid temp extremes
	* Ineffective endocarditis
		+ Hx of mitro valve prolapse – dentist prophylactic antibiotics
	* Paroitis
		+ Inflammation of the parotid
		+ s/sx 🡪 lack of saliva, pain near the ear
		+ usually in cases of dehydration combined with poor oral hygiene and the pt being NPO for a long time
	* peptic ulcer disease
		+ the nurses sees these in order by priority
			- PUD pt with sudden onset of stomach pain (indicative of perforated ulcer)
			- Pt requesting pain meds after repair of fractured jaw
			- Pt with suspected gastric cancer who is NPO
			- Pt awaiting surgery for hiatal hernia repair
		+ Black tarry stools 🡪 warning sign of bleeding
		+ Odor of the stool is VERY offensive
		+ Zantac
			- Reduce gastric acid secretions
			- Take at bedtime
		+ Prilosec
			- Helps ulcers heal quickly in four to 6 weeks
		+ Carafate
			- Protects the ulcer surface against acid, bile, and pepsin
		+ Antacids
			- Reduce acid concentration and help reduce symptoms
			- Cause constipation – increase fiber
			- Most effective if taken 1 to 3 hours after meals and at bedtime
		+ Eat small frequently meals through the day
		+ After awaking during the night the pt should eat a small snack and return to bed keep the HOB elevated
	* GI endoscopy
		+ Sudden spike in temperature following may indicate perforation of the GI tract
			- Other signs
				* Sudden onset of the pain, ridged board like abdomen, developing signs of shock
			- Medical emergency bc peritonitis develops quickly
	* Gastric ulcer
		+ Signs 🡪 vomiting and weight loss, blood in stools, complaints of burning epigastric pain
		+ Gastroscopy
			- Complication is perforation, aspiration
			- Sore throat is common
			- Usually sedated
	* Duodenal ulcers
		+ Complain of pain that occurs during the night and is relieved by eating
2. Cancer of the stomach
	* + Gastrectomy
			- 12-24 hours after gastric drainage is normally brown
			- N/V or abdominal distention indicates that gas and secretions are accumulating indicated that the drainage system is not working properly
			- Placed in low-fowlers post op
			- Post op
				* Eat small frequent meals
		+ Gastric resection
			- Food moves rapidly from the remaining stomach into the intestines
			- Dumping syndrome can occur
				* Reduce risk 🡪 carbohydrates are restricted, lying down for 30 min after a meal is encouraged to slow the movement off food bolus; fluids are restricted
				* Symptoms usually disappear by 6 to 12 months after surgery
				* Diet high in protein and fat, low in carbs
3. GERD
	* Do not lie down for about 2 hours after eating to prevent reflux
	* Avoid caffeinated beverages and milk
	* Instruct to follow high protein low fat diet
	* Upper GI series
		+ Involves administering a barium which must be promptly eliminated from the body bc it may harden and cause obstruction
		+ Take laxatives to stimulate BM
	* Eating substances that decrease lower esophageal sphincter pressure causes heartburn
	* Fatty foods, chocolate, peppermint, and alcohol should be avoided
	* Can develop pulmonary symptoms such as coughing wheezing and dyspnea
	* Can cause painful or difficult swallowing
	* Urecholine
		+ Cholinergic drug
		+ Increase LES pressure and facilitate gastric emptying
		+ Adverse effects
			- Urgency, diarrhea, abdominal cramping, hypotension, and increase salivation
	* Refluxes worsens when the stomach is over distended with food
		+ Important to eat small frequent meals
		+ Fluid intake should be decreased during meals to decrease abdominal distention
	* Hiatal hernia
		+ Heartburn is the most common symptoms
		+ Dysphasia and regurgitation of stomach contents
		+ Obesity contributes to the development
		+ Other causes 🡪 straining, frequent heaving lifting, and pressure
		+ Avoid the recumbent position immediately after meals
		+ Avoid bedtime snacks, high fat foods, and carb beverages
		+ Reglan
			- Increases esophageal sphincter tone
			- Facilitates gastric ending which reduces the incidence of reflux
			- Can cause sedation
		+ Tagamet
			- Decreases the quantity of gastric secretions
			- Used to prevent or treat esophagitis and heart burn
	* Bending especially after eating can cause reflux

Chapter 6

1. Cancer of the colon
	* Annual fecal testing for occult blood should begin at age 50
	* Digital rectal exams in men beginning at 50 to screen for prostate cancer
	* Hx of inflammatory bowel disease is a risk factor
	* Colorectal cancer
		+ s/sx
			- asymptomatic
			- vary according to location 🡪fatigue, weight loss, iron deficiency anemia
	* abdominal peritoneal resection with a colostomy
		+ assist with warm sitz bath to clean incision
		+ side lysing position to promote comfort
		+ dark red to purple stoma would indicate inadequate blood supply
		+ the colostomy would not typically begin functioning for 2-4 days after surgery
		+ mild edema and a slight oozing of blood is normal in the early post op
		+ karaya and stomahesive are both effective agents for protecting the skin around a colostomy
			- keeps the skin healthy and prevents irritation
		+ drink 2-3 L of fluid per day
2. hemorrhoids
	* associated with prolonged sitting or standing, portal hypertension, chronic constipation, prolonged increased intra-abdominal pressure (Prego), and a strain of vag delivery
	* hemrrhoidectomy
		+ prone or side lying
		+ adequate cleaning of the anal area is difficult but essential
			- sitz baths assist
3. inflammatory bowel disease
	* long term sulfasalazine therapy
		+ pt may develop folic acid deficiency
		+ can cause dizziness
		+ adequate fluid intake prevents crystalluria and stone formation
		+ gives urine a orange yellow color
	* ulcerative colitis
		+ stressful and emotional events can exacerbate
		+ primary symptoms is diarrhea
			- excessive diarrhea causes significant depletion of the body stores of sodium, potassium and fluid
		+ treated with steroids
		+ food will be withheld with severe symptoms to rest the bowel – pt placed on TPN
			- weight daily
			- monitor IV fluid rate hourly
			- monitor VS
		+ diet
			- well balanced high protein, high calorie, low residual (high residual foods – whole wheat grain, nuts, raw fruits and vegetables)
	* crohn’s disease
		+ can cause hypoalbumnemia
		+ priority goal – promote bowel rest
			- decrease activity encouraging rest
			- NPO
4. Intestinal obstruction
	* s/sx in small intestine
		+ projectile vomiting, rapid developing dehydration, increased bowel sounds (high pitched and tinkling)
	* intestinal decompression is accomplished with a cantor, Harris, or miller-Abbott tube
		+ remove fluid, gas which relieves the pressure
	* nasoenteric tube
		+ After placement, place pt in right side lying
		+ Weighted with mercury
		+ Attached to suction
		+ Obstruction of tube can lead to peritonitis
5. Ileostomy
	* Can be worn for 4-7 days unless the pouch leaks
		+ If leakage, promptly change to avoid skin irritation
	* Neomycin
		+ Decreases intestinal bacteria thereby decrease the potential for peritonitis and wound infection
	* High priority outcome for ileostomy surgery is F&E balance
	* Irritating to the skin bc of high concentration of digestive enzymes
	* NO NUTS
	* Drains stool at frequent intervals
		+ A decrease in drainage and pain could mean obstruction
		+ Other symptoms of obstruction would be vomiting and watery discharge with no stool
6. TPN
	* If infection is suspected obtain a specimen
	* Solution is usually a hypertonic dextrose solution
	* Goal -🡪 meat clients nutritional need
	* During administration should be monitored for hyperglycemia
	* Complications
		+ Central line
			- Infection, air embolus
			- Sterile technique
			- Covered with a air occlusive dressing
		+ Leakage or cath puncture
		+ Take VS every 2 to 4 hours
		+ Glycosuria is to expected during the first few days until the pancreases adjusts
		+ Gradual weight gain is expected
		+ Too rapid infusion can lead to circulatory overload
7. Diverticular disease
	* Diet 🡪 high fiber
		+ Increase fluid intake – minimum of 2000 ml day
	* Elevated WBC is normal
	* Barium enemas and colonoscopy are contraindicated
		+ Can lead to perforation or peritonitis
	* Should refrain from any activities such as lifting, straining, or coughing – increase intra-abdominal pressure and precipitate an attack
	* NOT CURABLE
	* Treated with bulk laxatives like Metamucil
8. Appendicitis
	* Appendectomy
		+ Post op
			- Clean gently
		+ Pre op
			- NPO
		+ Noting the clients first BM after surgery is important
		+ Drains inserted post op when an abscess was present
	* Pain at McBurney’s point🡪 lies between the umbilicus and right iliac crest
	* Complications
		+ Perforation, peritonitis and abscess formation
9. Inguinal hernia
	* Strangulated hernia
		+ symptoms
			- severe abdominal pain
		+ without immediate interventions – necrosis and gangrene may develop
			- surgery is required
	* inguinal herniorrhaphy
		+ post op
			- ice bag to scrotum will decrease pain and edema
		+ complications
			- inability to void
10. dehiscence
	* cover with sterile dressing moistened with saline

Chapter 7

1. Cholecystitis
	* Morphine
		+ Causes biliary spasm🡪 should not be ordered for Cholecystitis
		+ Preferred opioid is Demerol. [can cause seizures]
			- Chapter 7 ?? # 2 and 10 contraindicates each other [pg. 469]
			- Also # 20
		+ Dilaudid can also be administered [IV for rapid relief]
	* Bile is created in the liver, stored in the gallbladder, and released in the duodenum giving stool its brown color.
		+ A bile duct obstruction can cause pale colored stools.
		+ S/SX: RUQ pain, fever, from inflammation or infection, jaundice from elevated serum bilirubin levels, and nausea after fatty meal.
	* Bile Duct exploration
		+ A T-Tube is inserted in the common bile duct to maintain patency until edema from the duct exploration subsides.
		+ Bile should be gold to dark green and the amount of drainage should be closely monitored to ensure tube patency.
		+ The T-Tube should drain approximately 300-500mL in the first 24hr and after 3-4 days the amount should decrease to <200mL in 24hr.
			- If a sudden ↓ in drainage the nurse should check for patency [for obstruction]
	* Cholecystectomy
		+ Should follow a low-fat diet
			- Lean meats🡪 beef, lamb, veal, and well-trimmed lean ham and pork [low in fat]
			- The amount of fat allowed in a pt’s diet depends on how the pt can tolerate fat.
		+ Post op
			- Liquid diet (immediately) – then resume normal diet as tolerated
		+ Right shoulder pain from gas
2. Pancreatitis
	* Elevated amylase & lipase
	* Ranson’s criteria
		+ Clinical predictor scale used to assess the severity of acute pancreatitis
	* Alcoholism is a major cause
	* Life threatening shock is a potential complication
	* Greys turner sign – bluish discoloration in the flank area cause retroperitoneal area
		+ Need to turn the pt will be on the back
	* Diet – increase carbohydrate
	* Acute necrotizing pancreatitis
		+ NPO
		+ TPN feedings
		+ Fat necrosis occurring with AP can cause hypocalcemia requiring calcium replacement
			- Jerking a muscle twitching, numbness and fingers and lips, irritability
	* Lasix & crash dieting and binge eating can cause
	* Imipenem
		+ Indicated in the treat of with necrosis and infection
	* Morphine, Dilaudid are the opioids of choice
		+ Morphine can cause spasms of the sphincter of oddi
		+ Demerol via what we learned last semester
	* Complications
		+ Respiratory problem, pneumonia, atelectasis, plural effusion
	* Symptoms
		+ Abdominal pain
			- Position side lying or semi-fowlers
		+ Daily weights obtained
	* Porpantheline
		+ Anticholenergic , and spasmodic
		+ Decreases vagal stimulation and pancreatic secretions
		+ Assess bowel sounds – absent could mean paralytic ileus (contraindicated with a paralytic ileus)
	* Chronic pancreatitis
		+ Destruction of pancreatic tissue
		+ Requires pancreatic enzyme replacement
			- If enzymes are adequate the stool will be relatively normal
			- Increase in odor or fat content would indicate the need for dosage adjustment
		+ Can develop DM
3. Viral hepatitis
	* Tylenol – toxic to liver
	* Hep B
		+ Sexual transmitted
		+ STD
		+ Interferon
			- Causes flu like adverse affects
				* HA, nausea, fever, fatigue
	* Hep A/E
		+ Poor sanitary conditions
	* BOWEL TO VOWEL
		+ A & E 🡪 thru the feces
		+ B C D 🡪 blood, saliva, bodily fluids
	* Excessive bilirubin
		+ Turn skin a sclera yellow
		+ Urine dark and frothy
	* Fatigue & malaise are common complaints
	* Treatment
		+ Bedrest with bathroom privileges
	* Prothrombin time may be prolonged
		+ Decrease absorption of vitamin K
	* Diet
		+ Low fat
		+ High protein
		+ High carb
4. Cirrhosis
	* Hepatic encephalopathy
		+ Caused by an increased ammonia level
		+ Protein is restricted in an effort to decrease ammonia
	* Asterixis
		+ Flapping tremor
		+ Symptom of increased ammonia levels
	* Lactolose to reduced ammonia
		+ Causes you have BM to get rid of ammonia levels
		+ Not administered with antacids
	* High Ammonia levels can cause the hepatic encephalopathy and coma
		+ Monitor LOC
	* Hypocalcemia
		+ Precipitating factor
	* Portal hypertension and hypoalbunemia
		+ Result of cirrhosis
		+ Causes a fluid shift into the peritoneal space causing Ascites
	* Constipation leads to increased ammonia levels
	* Early manifestation are suddle
		+ Anorexia, N/V, change in bowel pattern
	* Aldactone
		+ Treats Ascites
		+ Potassium sparing diuretic
		+ Monitor for hyperkalemia
			- Abdominal cramping, diarrhea, dizzy, HA, and rash
	* Diet
		+ High cal, high carb
	* Ascites
		+ Elevate the HOB to expand lungs
		+ Can compromise the diaphragm and cause resp problems
		+ Greatly increases the risk of skin breakdown
		+ Freq reposition – fowlers is the preferred position
		+ Hypoalbunemia mechanism underlying Ascites formation
	* Esophageal varicies
		+ Drug treatment – octreotide, vasopressin, NITRO, or beta blockers to lower portal hypertension and to decrease the varicies
		+ Sengstaken-blakemore
			- Scissors at the bedside in case of a airway obstruction
	* Should avoid constipation and straining to avoid hemorrhage
	* Has bleeding tendencies bc of the livers inability to produce clotting factors
	* Pericentesis
		+ Empty bladder
		+ High fowlers

Chapter 8

1. Thyrotoxicosis
	* Graves disease is most common
	* Hypermetabolism
	* Tachycardia and fine muscle tremors, weight loss, alogomenorria, decreased libido
	* hypothyroidism
		+ bradycardia, decreased energy, lethargy, memory problems, weight gain, course hair, constipation, menorrhagia
	* PTU – med for graves disease
		+ Adverse affects
			- Leucopenia, Agranulocytosis
				* Promptly report sore throat and fever
2. Refer to orange book page 441
3. DM
	* Lantus
		+ Long acting insulin
		+ Do not mix with other insulins
		+ Adverse affect
			- Lactic acidosis
				* s/sx – weakness, fatigue, usually muscle pain, dyspnea, stomach discomforts, dizziness, lightheadedness, bradycardia, cardiac arrhythmias
	* check feet
	* kussumauls respirations – type 1
	* prone to hypertension
	* lispron (humalog)
		+ starts acting in 10 to 15 min
		+ last 4 hours
	* complications
		+ renal failure
	* ace inhibitors increase renal blood flow and are affective in decrease diabetic neurophythy
	* steroids can cause hyperglycemia
	* insulin need increase during illness
4. pituitary adenoma
	* pituitary tumors can cause an over secretion of ACTH, GH, or TSH
		+ overproduction of ACTH 🡪 cushings
		+ overproduction of GH 🡪 giant
		+ overproduction of TSH 🡪 hyperthyroidism
		+ overproduction of prolactin 🡪 galactorrhea
			- overflow of breast milk
			- men 🡪 decrease libido and impotence
	* transspenoidal hypophysectomy
		+ cellaterica is entered from below the sphenoid sinus
		+ Removes large invasive pituitary tumors
		+ Nursing care
			- Monitor CSF leakage
				* Bedrest with HOB elevated to decrease pressure on graft site
			- Signs of infection
			- Hypoglycemia
		+ The dural opening 🡪 repaired with a patch of muscle or fascia taken from the abdomen or thigh
		+ DI is complication
			- Vasopressin
5. Addisons disease
	* Decrease in Adrenocortical hormone
	* s/sx
		+ fatigue, n/a/v/d, abdominal pain, decreased LOC, weight loss, dry skin, decrease body hair, increase skin pigmentation
	* adrenal crisis
		+ hypotension, rapid weak pulse, rapid resp rate, pallor, extreme weakness, hyperthermia
	* each liter of 5% dextrose in NS contains a 170 calories
	* ↑
		+ K+
	* ↓
		+ BS
		+ NA
	* Lifetime steroid replacement
	* Medalert bracelet should be worn
	* Decrease renal perfusion and excretion of waste products which causes increase BUN
	* Cortone
	* Floranef
	* Acetate
		+ Adm once a day
	* Steroids can cause GI irritation should take with meals
6. Cushings
	* Classic sign
		+ Bruising from increased skin and blood vessel fragility
	* Excessive cortisol secretion
	* Skin become thin and fragile
	* S/SX
		+ Weight gain, mood swings, and slow wound healing, moon face, buffalo hump, central obesity, thin musculature, HTN
	* Causes:
		+ Tumor
		+ Overstimulation of pituitary gland
		+ Use of prescription steroid drugs
	* ↑
		+ Na
		+ BP
	* ↓
		+ K+
	* Diet
		+ Restrict sodium
		+ Supplemental protein intake
		+ Potassium rich foods
	* Complication
		+ Osteoporosis
	* Bilateral Adrenalectomy
		+ Affective splinting for a high incision reduces stress on the incision line decreasing pain and increasing the ability to breath affectively
		+ Priority for first 24 hours
			- Prevent adrenal crisis
		+ Requires lifelong adrenal hormone replacement
		+ If unilateral
			- Pt gradually reestablish a normal secretion pattern
7. Perimenopausal or menopausal syndrome
	* Deficiency of estrogen
	* Menopause occurs from ovarian follicle ceasing to produce estrogens
		+ s/sx
			- hot flashes, HA, mood changes with irritability and anxiety
				* estrogen is effective in the control of hot flashes
	* complications of hormone replacement therapy
		+ endometrial or uterine cancer
			- s/sx
				* irregular vag bleeding
8. pheochromocytoma
	* release catecholamines
		+ both epinephrine and norepinephrine
		+ causes hypertension that is resistant to treatment
	* post op
		+ maintain normal BP